

**NATIONAL GUARD AND RESERVE EQUIPMENT
REPORT FOR FISCAL YEAR 2007**

(NGRER FY 2007)

(In Accordance with Title 10, United States Code, Section 10541)

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**Prepared by
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FORWARD

The Reserve components (RCs) are transforming from a strategic reserve to an operational reserve capable of supporting day-to-day defense requirements and conducting wartime missions. No longer forces being held in reserve in the event of a major war, the RCs have a key role in helping the Services adjust their force structures through transformation initiatives to meet wartime and Homeland Defense requirements.

Since September 11, 2001, our RCs have performed superbly in missions ranging from humanitarian assistance and hurricane relief to high-intensity combat operations. These missions have presented several equipment challenges, particularly for RC ground forces that carry a large burden of the security and stabilization efforts in Iraq and Afghanistan. To address these challenges, the Services have cross-leveled equipment among units and directed deploying units to use equipment remaining in theater as Stay Behind Equipment. Although successful, these actions present considerable challenges for the training and readiness of both non-deployed units and units returning to their home stations post-deployment.

With finite budgets and competing requirements, the Services have developed innovative long-range equipping strategies to meet their equipment challenges. Some of these strategies include initiatives such as AC/RC rebalancing, modularity, and the creation of blended or augment units. The Department of Defense has partnered with the Services to ensure the RCs are equipped with modern, interoperable equipment that is vital to the success of our defense strategy.

In response to Congressional reporting requirements in Title 10, United States Code, Section 10541, this National Guard and Reserve Equipment Report (NGRER) outlines how the Services and the United States Coast Guard plan to meet their RC equipment requirements in support of the National Military Strategy.

Chapter One presents an overview of RC equipment. Chapters Two through Six provide detailed narratives and data for each RC for FY 2007 and projected data through FY 2009. Overall, this NGRER illustrates the effort needed to better integrate our RCs into the Services' equipping plans and programs to achieve a well-balanced, seamlessly integrated, and capabilities-based Total Force.

Sincerely,

A handwritten signature in black ink that reads "T. F. Hall". The signature is written in a cursive style with a large, stylized "H".

T. F. Hall

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Chapter 1 Analysis and Conclusion

I. Analysis

In carrying out the National Military Strategy, the U.S. Armed Forces are employed for a variety of missions. These include combat operations, peace-keeping operations, homeland defense, civil support, drug interdiction and humanitarian services. Today, the Services and their Reserve Components (RC) make up one seamless force committed to fighting the Global War on Terrorism (GWOT) and other missions of the Department of Defense.

Meeting the equipping needs of the RC in future years requires a closer working relationship with the Services than ever before. The continued deployment of ground force equipment is requiring significant resources to maintain. This is especially true for the Army as it faces the challenge of implementing the Army Modular Force while at war. Past years of resourcing the Army National Guard (ARNG) and Army Reserve (AR) as a strategic reserve, a lower priority force, has resulted in equipping shortfalls. Current operations require that the Army leave equipment in theater as Stay Behind Equipment (SBE) for use by follow-on forces. Ground force equipment is being stressed by harsh operating conditions and used at rates five to ten times greater than peace time conditions. The Army has cross-leveled large amounts of equipment to deploying units causing serious concern for the equipment readiness of non-deploying and returning units. These efforts have resulted in shortages of many critical equipment items such as trucks, radios and night vision devices, to meet all critical training, civil support, and future mobilization requirements.

As an operational force, when reserve component units are subject to imminent call-up for both overseas and domestic missions, a new equipping strategy is required. The Army's equipping strategy plans to transform the Army into a new modular force. The Army's FY 2005–2011 equipping strategy converts both Active and ARNG combat structure to modular Brigade Combat Teams (BCTs) and addresses portions of the new Support Brigade structure. This equipping strategy is funded by the Presidents Budget and Supplemental funding provided by Congress. The Army has challenges in addressing the equipping of its Combat Support (CS) and Combat Service Support (CSS) units. They are in the beginning stages of doing that in the FY 2008–2013 POM cycle where they intend to address the remaining CS and CSS shortfalls. A large portion of the ARNG and the majority of AR units are in the CS and CSS force.

The current commitment to the GWOT has strained equipment readiness rates of Marine Corps equipment. The Marine Corps presently has 26 percent of its active operating forces deployed, utilizing 30 percent of its ground equipment and 25 percent of its aviation assets. The Marine Corps Reserve reports 95 percent of equipment on-hand with an overall 73 percent equipment readiness rate for the fourth quarter of FY 2005, down from a readiness rate of 79 percent for the fourth quarter FY 2004. Equipment usage rates in combat theaters are up to eight times higher than those in other locations, resulting in increased operation and maintenance cost beyond what is typically budgeted.

To reverse the effects of combat stress on equipment, the Army and Marine Corps are executing robust Reset programs. The Army and Marine Corps are resetting equipment for future

missions. The Army is resetting units forward to the new modular formations, not back to their legacy designs. The purpose of Reset for the Army and Marine Corps is to bring equipment to a combat-ready condition and includes equipment from the Active component (AC) and RC.

Priority for distribution of new and combat serviceable equipment remains with those units (active and reserve) that are deployed or scheduled to deploy. The Army has established two programs that are providing equipment to units to meet current operational challenges. The Rapid Fielding Initiative is designed to quickly fill soldier equipment shortfalls by fielding commercial off-the-shelf technology. The second program, Rapid Equipping Force, is focused on the requirements received from the Combatant Commanders for technical solutions to operational and tactical needs. The Marine Corps has undertaken an initiative to support the equipping needs of its Marines called the Critical Asset Rapid Distribution Facility. This facility is designated as the primary and central location for all newly fielded items of individual clothing and combat equipment, from which gear is issued to reserve forces preparing to deploy.

For the beginning FY 2006 dollar-weighted equipment requirements, the Air National Guard (ANG), Air Force Reserve (AFR), U.S. Navy Reserve (USNR), U.S. Marine Corps Reserve (USMCR), and U.S. Coast Guard Reserve (USCGR) all report equipment shortages of less than 7 percent. The ARNG reports a 28 percent equipment shortage and the AR reports a 36 percent equipment shortage beginning FY 2006.

II. Scope of Report

The National Guard and Reserve Equipment Report (NGRER) identifies major items of equipment in the RCs that are of interest to DoD and Congress. Major items of equipment include aircraft, tanks, ships, trucks, engineer equipment, and various communication and support items. Data on equipment included in the report consist of high-value, mission essential equipment requirements, critical RC equipment shortages, Service procurements and supplemental funding for RCs, and items procured with National Guard and Reserve Equipment Appropriation (NGREA) funds. Chart 1 shows the number of items of equipment included in prior NGRER reports to Congress. Although these numbers represent major items, they are in no way meant to represent the entire inventory.

CHART 1 Items of Equipment Reported in Recent NGRERs

Reserve Component	FY 2002 NGRER	FY 2003 NGRER	FY 2004 NGRER	FY 2005 NGRER	FY 2006 NGRER	FY 2007 NGRER
ARNG	113	113	121	130	129	129
AR	239	271	239	270	249	249
USMCR	157	156	156	152	151	157
USNR	38	38	35	35	36	36
ANG	30	31	31	30	27	33
AFR	16	27	27	28	19	19
USCGR	21	22	22	22	16	15
Total	614	658	631	667	627	638

Reserve component equipment inventories include thousands of different types of equipment. The FY 2007 NGRER highlights 638 major equipment types whose total dollar value represents 95 percent of the value of all RC equipment.

This report presents the results of analysis of Reserve Component inventories based primarily on the dollar value of the equipment, which allows the aggregation, comparison, and summary of diverse types of equipment. The total requirement and inventory for each major equipment type is weighted by the equipment's procurement cost. The procurement costs are from the Services' official data and are either the latest procurement cost adjusted for inflation or the current replacement cost.

III. Equipment Shortages

Chart 2 shows the dollar value of the current total major equipment requirements and inventories. It does not include substitute items of equipment in determining shortages of Army RC equipment. For this report, accounting for substitute items in the Army RC does not result in a complete analysis of the overall shortage for the Army RC. This is primarily because of the way the Army documents modernized equipment and the way units in the field report their on-hand models of equipment. The best way to determine levels of equipment shortages is by specific models of equipment. The current system does not allow an overall assessment. The RC total equipment shortfall is approximately \$18.8B, or 13.9 percent of the RC equipment requirements. This shortfall is 1.4 percent higher than the 12.5 percent FY 2005 shortfall shown in last year's NGRER.

CHART 2 Beginning FY 2006 Reserve Component Equipment Shortages

Reserve Component	Requirements (\$)	On-Hand (\$)	Shortage (\$)	Shortage (% of Req'd \$s)
ARNG	\$47,131,526,461	\$33,837,074,701	\$13,294,451,760	28.2%
AR	10,190,068,031	6,487,955,194	3,702,112,837	36.3%
USMCR	6,730,728,477	6,302,128,897	428,599,580	6.4%
USNR	12,426,950,664	12,162,658,664	264,292,000	2.1%
ANG	37,522,109,980	37,331,109,980	191,000,000	0.5%
AFR	21,114,907,000	20,162,107,000	952,800,000	4.5%
USCGR	26,999,000	25,964,000	1,035,000	3.8%
Total	\$135,143,289,613	\$116,308,998,436	\$18,834,291,177	13.9%

Note: Requirements, on-hand, and shortage entries are total equipment value, excluding substitutes.

The ARNG and AR are short equipment due to five primary reasons: (1) The Cold War-era tiered resourcing strategy to equip Army RCs with older and less equipment than AC units; (2) The necessity for Army AC and RC units to leave equipment in theater to support the current fight and the fact that equipment in theater is being used at rates five to ten times faster than peacetime operations; (3) The battle-losses experienced in theater; (4) The time it takes to repair or recapitalize redeployed equipment to a fully mission-capable condition; (5) The pause in funding modernization programs in the 1990s.

The DoD Directive 1225.6 directs that proposals for withdrawals, diversions, or reductions of any equipment from the RC, together with a projected equipment replacement plan for the removed equipment or supplies, shall be submitted for approval after coordination with the Chairman, Joint Chiefs of Staff, through the Assistant Secretary of Defense for Reserve Affairs, to the Secretary of Defense. The Army is working to establish accountability of SBE left for OIF and are also working to provide a payback plan that is required by the directive.

IV. Equipment Procurements Programmed to Fill Current Equipment Shortages

The Services program to begin the procurement of new equipment, both AC and RC, is in the President's Budget. The exhibit in the President's Budget that provides RC equipment procurement details is the P-1R. Table 3, which appears after each RC's narrative section in this report, depicts the requested and programmed procurements for the years FY 2007 through FY 2009.

Recent Service equipment procurements have not always been sufficient to meet the growing requirements to replace and modernize the RC equipment inventories; therefore Congress provides additional funds for the RC in the form of NGREA. These funds, which vary from year-to-year, have helped significantly to alleviate shortfalls in RC equipment procurement. NGREA projections beyond FY 2006 are not provided because the Services do not budget for these funds.

Funding levels from the RC procurement sources for FY 2001 through FY 2007 are shown in Chart 3. The FY 2007 funding does not include any NGREA or Congressional additions since they were unavailable when this report was prepared.

Chart 3 shows that the ARNG and AR experienced sizeable increases in their 2007 P-1R submissions. This is due largely to additional funding that begins in FY 2007 to fund Army Modularity. Additionally, FY 2005 and FY 2006 show a significant increase in total procurement funding for the Army, this is due primarily to supplemental funding provided by Congress. The ANG and AFR show a significant 2007 P-1R increase that is due primarily to an increase in upgrade modification to aircraft.

The USMCR and USNR show decreases in their 2007 P-1R submissions. The USMCR decrease is due primarily to funding for the High Mobility Artillery Rocket System (HIMARS) provided in the 2006 budget but not provided in the 2007 budget. The USNR decrease is due primarily to deferral of C-40A aircraft procurement and C-130 modifications until FY 2009.

CHART 3 Reserve Component Procurement Funding

FY	Procurement Funding Source	RC Procurement Funding (\$ in Millions)							
		ARNG	AR	USMCR	USNR	ANG	AFR	Total	Grand Total
2000	President's Budget P-1R Submit	661.1	176.0	56.9	77.4	334.1	149.3	1,454.9	
	Congressional Adds to AC Accts for RC	267.1	12.0	2.8	35.6	270.8	17.6	605.9	
	NGREA	29.8	29.8	19.9	19.9	29.8	19.9	149.2	
	Total	958.1	217.8	79.6	132.9	634.8	186.8	\$2,210.0	
2001	President's Budget P-1R Submit	884.4	174.3	43.7	34.7	326.8	127.6	1,591.6	
	Congressional Adds to AC Accts for RC	287.7	115.3	0.0	105.8	505.7	0.0	1,014.5	
	NGREA	49.5	5.0	5.0	5.0	29.7	5.0	99.1	
	Total	1,221.7	294.6	48.6	145.5	862.2	132.6	\$2,705.1	
2002	President's Budget P-1R Submit	925.6	181.5	40.4	24.1	377.9	108.7	1,658.3	
	Congressional Adds to AC Accts for RC	151.1	3.5	0.0	4.5	33.4	2.0	194.5	
	NGREA	217.3	101.5	4.9	9.9	280.4	75.2	689.3	
	Total	1,294.0	286.6	45.4	38.5	691.7	186.0	\$2,542.1	
2003	President's Budget P-1R Submit	1,046.3	568.0	253.7	39.5	341.7	118.6	2,367.8	
	Congressional Adds to AC Accts for RC	193.7	65.4	0.0	86.3	217.4	2.5	565.3	
	NGREA	29.4	9.8	9.8	9.8	29.4	9.8	98.0	
	Total	1,269.4	643.2	263.5	135.6	588.5	130.9	\$3,031.1	
2004	President's Budget P-1R Submit	501.2	244.3	66.8	129.7	453.5	169.8	1,565.3	
	Congressional Adds to AC Accts for RC	290.8	6.7	0.0	63.4	45.4	0.0	406.3	
	NGREA	99.3	44.7	44.7	44.7	119.1	44.7	397.0	
	Total	891.3	295.7	111.5	237.8	618.0	214.5	\$2,368.6	
2005	President's Budget P-1R Submit	586.8	302.5	55.6	127.3	425.8	134.7	1,632.7	
	Congressional Adds to AC Accts for RC	194.1	126.2	0.0	60.1	86.4	11.0	477.8	
	Supplemental	787.0	0.0	0.0	0.0	38.4	0.0	825.4	
	NGREA	110.6	51.8	49.8	43.8	98.6	43.8	398.4	
	Total	1,678.4	480.5	105.4	231.2	649.2	189.5	\$3,334.3	
2006	President's Budget P-1R Submit	1,144.7	37.7	252.0	101.5	427.7	164.5	2,128.1	
	Congressional Adds to AC Accts for RC	59.3	97.5	0.0	1.5	257.8	26.1	442.1	
	Supplemental	317.0	53.0	0.0	0.0	10.0		380.0	
	NGREA	729.6	129.6	29.6	29.6	229.6	29.6	1,177.6	
	Total	2,250.6	317.8	281.6	132.6	925.0	220.2	\$4,127.7	
2007	President's Budget P-1R Submit	2,115.6	391.6	120.4	60.0	628.9	234.1	3,550.6	
	Congressional Adds to AC Accts for RC								
	NGREA								
	Total							\$3,550.6	
Note 1: USNR figures include USMCR aircraft procurement funds. Note 2: The above figures do not include Ammunition procured for the RC. Note 3: NGREA for FY 2005 & FY 2006 includes both Title III & IX funding. Note 4: FY 2006 Congressional Adds for ANG include plus up for 2 C-130J aircraft scheduled for delivery to ANG. Note 5: FY 2006 Supplemental includes equipment in Title IX of PL109-148 that Services identified to go to RC. Note 6: FY 2007 Congressional Adds and NGREA values will not be available until after publication.									

The Army does not have enough equipment to resource every unit at 100 percent of its authorized equipment. Over time, the Army Force Generation Model (ARFORGEN), a model of cyclical readiness is designed to address this issue. The ARFORGEN changes the way the Army equips its units. It intends to provide equipment to units for training and when they fall into the window for deployment, so all units will not have their full complement of equipment at home station. Equipment in the future will be fielded according to the Army Resourcing Priority List (ARPL). Deployed units have top priority. Deploying units have second priority and training sets

are third in priority. The goal of the ARFORGEN and ARPL is to provide all units, regardless of component, the best available equipment when deploying for overseas missions and to provide modernized equipment when training.

V. Resetting the Force for Army and Marine Corps Equipment

Major combat and stability operations in Iraq and Afghanistan are placing recurring demands on Army and Marine Corps equipment. Over the past three years, the Army has deployed more than 40 percent of its equipment to OIF and OEF. As a result, the Army is resetting equipment for future missions. The Reset program is designed to reverse the effects of combat stress on the Army's equipment. The purpose of Reset is to bring unit equipment to combat-ready condition through the following programs:

- Replacing battle losses and obsolete equipment
- Recapitalizing equipment that needs extensive refurbishment, implementing lessons learned where feasible and affordable
- Repairing existing equipment in accordance with applicable Army maintenance standards

Recapitalization (Recap) is the Army's long-term investment strategy to sustain the equipment readiness of the Army. The program focuses on 17 key systems and includes equipment from all components of the Army. One example is the Army's plan to Recap 11,000 HMMWVs in FY 2006, providing a heavier suspension and drive train to withstand the requirements of use in theater.

The Marine Corps also has a "reset the force" initiative that seeks to restore/enhance AC and RC equipment returning from overseas operations. The initiative assumes a large percentage of returning equipment will be unserviceable. The cost to reset the force is requested in the FY 2006 Supplemental, with items not funded by the Supplemental to be competed in POM 08-13.

VI. Modernization and Compatibility

RC units traditionally receive a large portion of their equipment when AC units receive more modern equipment. This process places equipment in the RC at least one level of modernization behind that in the AC. This equipment requires considerably more maintenance and repair parts. Although the Services have programmed for replacement vehicles and modernization upgrades, full modernization and replacement of the RC fleets will stretch beyond the FYDP. In response, RCs use Congressional funding, Service Life Extension Programs and Depot Maintenance programs to leverage funding for modernization.

The ANG has modernization shortfalls and compatibility problems with many of the components on its older aircraft. The lack of precision engagement capability, re-engining, and improved defensive systems drive modernization of legacy aircraft to be the ANG's number one priority. Additionally, ANG air traffic control and approach control equipment are generations behind the AC causing logistics support to be time consuming and overly expensive.

The AFR maintains equipment readiness on par with the active Air Force except where limited by modernization restrictions. The AFR, like the ANG have modernization unfunded requirements. Tiered readiness is not applicable to the AFR or ANG. Equal capabilities of similar combat and combat support units between the AC and RC must be modernized at the same pace and level to maintain readiness for not only the current GWOT but future conflicts. If modernization shortfalls continue in the ANG and AFR, the ARC components will not be able to maintain the same level of capability that the AC expects and needs. Listed in the narrative portion of this report for the AFR and ANG are the list of modernization shortfalls validated by the appropriate RC requirements review process.

The Navy Reserve, as well as the active Navy, continues to face the challenge of procurement requirements exceeding available resources. The top equipment priorities for the Navy Reserve include procurement of engineer and materiel handling equipment, upgrade of the F/A-18A aircraft and procurement funding for the F-5, C-40A and MH-60S aircraft. The Navy will continue to balance resources to best equip the AC and RC to support mission requirements.

Marine Corps Reserve units continue to experience communication incompatibility issues with the AC, which has a direct impact on effective command and control. The USMCR reported in last year's 2006 NGRER that their major equipment shortage was in communications equipment, especially at the intra-squad and small tactical unit level. The USMCR has used NGREA funds to procure communications equipment to start remedying this issue.

The ARNG and AR have experienced most of their incompatibility issues in communications and electronics systems where Combatant Commanders require similar capability with all units regardless of component. Communications equipment, trucks and night vision devices are at the top of Army RC equipment shortages. The AR reports that 31 percent of its equipment typically more than one level of modernization behind the newer models of equipment fielded to the AC. The ARNG reports that current levels of CS and CSS equipment on-hand fall well short of their objectives in meeting the challenges of having the proper equipment to conduct both domestic missions such as hurricane and disaster relief missions and war time operations.

The Coast Guard Reserve reports equipment needed for training and operations appear to be adequate to meet projected requirements through FY 2009. Equipment for mobilization or for normal operational surges is provided by the Active Coast Guard from existing unit inventory, from supporting units, or through contemporary procurement requested through the Department of Homeland Security.

The Depot Maintenance programs and Service Life Extension Programs allow the RCs to rebuild equipment to meet their needs and the needs of the Combatant Commander. These programs along with NGREA have become essential for equipment readiness and modernization in the RCs.

VII. Conclusion

Priority for distribution of new and combat serviceable equipment remains with those units (active and reserve) that are deployed or scheduled to deploy. Continued emphasis is

needed on modernization and equipment upgrades to ensure the RCs retain their warfighting capabilities in support of the operational force defense missions.

The RCs are funded at approximately \$3.3 billion for FY 2005 and \$4.1 billion for FY 2006 for equipment procurement to reduce current shortfalls and to replace older equipment with the more modern and capable models. This funding includes supplemental funding provided by Congress.

The Army equipping strategy includes approximately \$21 billion for equipping and modernizing the ARNG BCTs during FY 2005–2011. This investment includes approximately \$6.9 billion in combat vehicles and weapon systems, \$4.5 billion in tactical wheeled vehicles, \$3.5 billion in communications equipment and \$3 billion in force protection equipment. These investments provide the ARNG with equipment needed for both wartime and homeland defense missions. The Army equipping strategy also includes approximately \$3.8 billion for the Army Reserve during FY 2005-2011. This ARNG and AR funding will provide equipment to decrease the equipment on hand shortages shown in chart 2 on page 1-3.

The Army's POM 2007-2011 addresses Modularity equipping requirements for the AC and RC BCTs and for CS and CSS forces organic to the BCTs. An additional \$5 billion per year funding for Army Modularity is provided during years FY 2007 – FY 2011. The Army plans to address the equipping needs for the remaining multi-functional and functional CS and CSS unit shortages in the POM 2008-2013, and develop courses of action to remedy the risk accepted in the CS and CSS units.

The USMCR, USNR, AFR, and USCGR are developing funding strategies based on the Total Force resourcing strategy and project Equipment-on-Hand (EOH) percentages of 95 percent and above through FY 2009. Despite these high percentages, the RCs still have modernization challenges that interfere with full interoperability and compatibility with their AC counterparts, particularly after FY 2009.

Chapter 2 United States Army Reserve Components

I. Army Overview

A. Overall Army Planning Guidance

We remain an Army at War. The most significant aspect of our current strategic guidance is that the Global War on Terrorism (GWOT) will be a protracted one. The Army must be prepared to sustain operations during a period of persistent conflict—not only in Iraq and Afghanistan, but other critical areas of the world. In addition, Soldiers and equipment must be ready to support homeland security tasks and calls to help in natural disaster and humanitarian missions.

The Army's overarching strategic goal is to remain relevant and ready by providing the Joint Force with essential capabilities to dominate across the full range of military operations. Our focus is centered on two core competencies: 1) train and equip Soldiers and grow leaders, and 2) provide relevant and ready land power capability to the Combatant Commanders as part of the Joint Team. The Army Campaign Plan provides strategic planning guidance, to include but not limited to supporting global operations, adapting and improving total Army capabilities, optimizing Reserve Component (RC) contributions, adjusting the global footprint, building the Future Force, and developing a Joint, interdependent logistics structure.

The first priority for the Army is to successfully pursue this war, which includes the requirement to maintain and improve the readiness of the Current Force. To do this, the Army is focusing on equipping Soldiers, resetting units returning from and preparing for deployments, and restructuring into modular units that will be available to support operational requirements in the ongoing war.

The next and related priority is to strengthen the Army's contributions to joint and combined warfighting capabilities by fielding new systems, inserting new technologies and capabilities into existing systems, fielding the capabilities of the Stryker Brigade Combat Teams (SBCTs), and modernizing into future formations. Army Special Operations Forces (SOF) is another force modernization priority because of their unique capabilities and contributions to the Joint Force in the ongoing global war on terrorism.

Due to dramatically increased operational tempo, the operational fleet's condition and age are affecting current equipment readiness. Increased mileage and flight hours, coupled with the severe environmental conditions encountered in Iraq and Afghanistan, have placed greater stress on the fleet than expected. As part of the Reset Program, increased repair, recapitalization, and replacement of systems will be required to ensure our fleet is maintained and fully capable. Although the Army is making extraordinary efforts to equip all units deploying to theater, lack of modernization equipment within the RC is the foremost AC compatibility issue. Decreased mobilization to deployment and/or employment timelines makes it imperative that RC units be modernized and equipped at the same level as the AC prior to mobilization.

B. Army Equipping Policy

The Army's key materiel programs develop and field new equipment systems, provide incremental improvements to existing systems, or recapitalize existing fielded systems by rebuilding to a zero-miles/-hours condition and upgrading system capabilities. Army equipping efforts are focused to support several objectives to include the following.

The Army's highest priority is to field systems and provide needed capabilities to both Active and Reserve Component (AC/RC) units deployed (or in the process of deploying) in support of Operation Iraqi Freedom (OIF) and Operation Enduring Freedom (OEF). As a part of this effort, the Army has created a "pool" of equipment in theater referred to as "stay-behind equipment" (SBE) that units will draw upon on their arrival. The use of SBE allows the Army to provide units with required capabilities (such as armored HMMWVs and cargo trucks) while minimizing shipping time and transportation costs. Based on requests by the combatant commanders, units may also be provided additional equipment with improved capabilities while they are deployed.

The Army continues to convert the Current Force units to a modular design. Previous conversions (FY 2004) included the brigades and division headquarters of the 3rd Infantry Division, 10th Mountain Division, and 101st Air Assault Division. FY 2004 conversion activities included the activation of an additional modular brigade for the 3rd Infantry Division, 10th Mountain Division, and 101st Air Assault Division. FY 2005 modular conversion includes the 4th Infantry Division (convert existing units and activate an additional Brigade Combat Team or BCT), and the activation of two additional BCTs (one each for the 10th Mountain Division and 25th Infantry Division).

Equipping efforts also focus on developing capabilities consistent with joint interdependence and conducting operations in a joint, interagency and multinational (JIM) environment. The Army's objective is to accelerate the development and fielding of Future Force capabilities for insertion where feasible into the Current Force. The Army is working to field Stryker, Future Combat Systems (FCS), and other systems by using a method called Unit Set Fielding (USF) to meet established time lines for achieving an initial operational capability (IOC) for the unit and its interdependent system-of-systems (SoS) set.

Rapid fielding and rapid equipping initiatives leverage current programs and commercial off-the-shelf (COTS) technology to give the Soldier increased survivability, mobility and lethality capabilities. Soldier protection has been a major focus area for both the Rapid Fielding Initiative (RFI) and Rapid Equipping Force (REF) fielding activities in support of OIF and OEF.

In support of the overall goal of maintaining and improving readiness, the Army has developed a coordinated and comprehensive strategy of integrating all its efforts and programs across the DOTMLPF (doctrine, organization, training, materiel, leadership and education, personnel, and facilities) spectrum. This strategy can be described best as one of "balanced modernization," which seeks to develop and field combat-capable units through an appropriate mix of significant organizational restructuring into more modular units, insertion of new capabilities where and when feasible, selective procurement and fielding of new equipment (modernization); and restoring and preserving the readiness of current equipment (reset),

including the rebuilding and upgrading of key existing equipment through recapitalization. Overall, Army modernization efforts are placed into two fundamental categories:

- **Modernization**—the development and fielding of improved operational capabilities through a combination of organizational restructuring into modular formations, the insertion of new technologies into existing systems and units, and the procurement of new systems with improved capabilities.
- **Reset**—the restoration and preservation of the combat readiness of units, returning from or preparing for operational deployments, through the repair or replacement of end items, parts, assemblies and subassemblies that are worn or broken; essential retraining and application of lessons learned; and readjustment of prepositioned stocks of equipment and munitions. Incorporates recapitalization, which is the rebuild and selected upgrade of currently fielded systems.

C. Army Plan to Fill Mobilization Shortages in the RC

During a large-scale mobilization, the Army will employ the most practical and efficient means of redistribution. This includes the issue of serviceable warehouse stocks, repair of unserviceable items, procurement and substitution of commercial equipment, cross-leveling of any excess unit equipment or equipment left behind by deploying units that acquire pre-positioned equipment. It also includes unserviceable equipment that can be repaired quickly, including depot work in progress, National Inventory Control Point stocks, and new procurement.

Upon mobilization notification, all Army units will update equipment on-hand data in the Army master database called the Continuing Balance System-Expanded. This data, when matched against requirements documents by Materiel Management Centers, will highlight equipment shortages and excesses. Orders for lateral transfer and materiel release orders will then be issued. Each level of command will perform redistribution from within its own resources before forwarding unfilled requirements to the next higher echelon. The Headquarters, Department of Army (HQDA) will issue prioritization guidance for all AC and RC units based on the needs of the Combatant Commanders, with consideration for modernization, interoperability, and readiness.

D. Current Army Initiatives Affecting RC Equipment

To achieve readiness of the force over time, the Army prioritizes its investment of limited resources in accordance with DoD guidance reflected in the Strategic Planning Guidance and Joint Programming Guidance, and further defined in *The Army Plan*, and in response to current operational requirements. There are two major categories of investments for the Army—equipping and restructuring the Current Force, and equipping and structuring the Future Force. Lately, there has been a significant shift in prioritization and emphasis as a result of the demands of the global war on terrorism.

1. Current Force

a. Reset

Under the overarching program, “setting the force” or “reset,” the Army returns units to prehostility readiness levels while providing resources to win the fight, transform, modernize and recapitalize. Specifically, setting the force executes Army activities that return all deployed equipment to fully operational standards, upgrade capabilities implementing OIF and OEF lessons learned, reorganize to modular designs in accordance with the Army Campaign Plan, replace obsolete equipment in prepositioned stocks, and reconfigure those stocks to be more strategically relevant and responsive.

As units begin to redeploy from operational theaters, the Army will continue to set the force to meet future requirements. The goal is for all returning active duty units to achieve a sufficient level of combat readiness, equipment and training, within six months of their arrival at home station. RC units will take longer to achieve their desired level of readiness, and the goal for them is to re-establish readiness within one year. The Army is working with the Army National Guard and Army Reserve to improve the reset process for returning equipment. This is important not only for preparation to meet requirements for global contingencies, but also in support of homeland security and civil authorities for many different missions within the United States.

b. Modular Force

A central component of the Army’s efforts to meet the demanding requirements of current operations and anticipated future missions is the major initiative that began in February 2004 for restructuring Army units into modular designs. This initiative is intended to provide Army units that are more relevant to the combatant commanders in today’s environment and possess greater versatility in fulfilling the demands of frequent deployments, a wide range of missions, and true joint interdependency. This transformation into modular units is essential to effective support in the ongoing war on terrorism, since it will result in a greater number of Army units that are better organized to operate with increased flexibility and self-sustainment for a wider range of missions.

The approval in 2004 of an Army end strength increase of up to 30,000 has enabled the Army to fight the GWOT and convert AC combat units to the modular design, with four divisions scheduled for completion by 2005. Besides converting AC forces, the plan is to begin converting ARNG units during FY 2005, with the end goal of converting all 28 BCTs by FY 2010. These modularized BCTs will be organized into two major types: maneuver (heavy and infantry) and support (aviation, maneuver enhancement, reconnaissance and surveillance, fires, and sustainment), all of which will be better prepared to provide improved capabilities as well as reduce the stress on the force in meeting operational demands.

c. Army Force Generation (ARFORGEN)

The new strategic context of continuous operations renders obsolete the old Army readiness paradigm of “all ready, all the time.” Continuous, full-spectrum expeditionary operations are the new reality. The Army is transforming its concepts, capabilities and

organizations to meet the demands of this new strategic context. Nested within Army transformation, the Army is developing an operational cycle to optimize its process of force generation to provide a continuous supply of relevant and ready land power to joint force commanders and civil authorities at home.

The operational cycle pools AC and RC modular units into force packages to meet joint requirements. These force packages are assigned deployment windows based on cyclical phases—reset/train, ready, available—within the operational cycle to provide a continuous supply of ready forces. While preserving the capability to surge forces for major combat operations, planning goals are one deployment in three years for AC forces and one deployment in six years for RC forces. Rather than the previous process of “tiered readiness,” priority of resources will be assigned to AC and RC forces based on their availability dates.

d. Global Force Posture

To improve its strategic responsiveness, the Army is improving its ability to rapidly deploy to austere fighting environments, fight on arrival throughout the battlespace, and sustain operations until victorious. The Army Reserve is being reorganized into modular forces that are aligned into expeditionary packages. These expeditionary packages are manned and equipped to levels equivalent to their AC counterparts in synchronization with operational cycles. These packages can also be tailored to provide specific operational capabilities.

Parallel with the Base Realignment and Closure (BRAC) process, the Army is identifying critical joint power-projection installations to support the mobilization, demobilization and rapid deployment of Army forces. The Army is simultaneously enhancing force reception and deployed logistics capabilities to quickly respond to unforeseen contingencies.

To complete the transition to an expeditionary force, the Army will reposition ground forces to meet emerging challenges and adjust permanent overseas presence to a unit-rotation model that is synchronized with Army force generation initiatives. In Europe, both heavy divisions will return to the United States—being replaced by an airborne brigade in Italy, a Stryker brigade in Germany, and possibly a rotational presence within Eastern Europe. The Army will maintain a rotational presence in the Middle East while eliminating many of our permanent bases. In the Pacific, the Army will maintain smaller forward-based forces, but will station more agile and expeditionary forces at power projection bases that can rapidly respond to any contingencies.

e. Accelerating Change

Over the past year, the Army has significantly accelerated transformation. The Army is adapting to its business processes so they are more flexible, dynamic, transparent and responsive. The Army generates requirements based on the needs of the joint force commander, emphasizing the needs of engaged commanders—fulfilling immediate, unprogrammed requirements while balancing resources to ensure long-term viability of the force.

Through the Rapid Fielding Initiative (RFI), the Army is purchasing and fielding state-of-the-art equipment at an unprecedented pace. Examples are 100 percent fielding of improved

body armor to all Soldiers operating in Afghanistan and Iraq, advanced thermal sights and personal equipment, and a variety of state-of-the-art mission essential items.

The Army also continues to field innovative technology solutions directly to operational commanders through the Rapid Equipping Force (REF). Such innovative solutions include a variety of robotic systems and other technologies used in high-risk searches, technologies to counter Improvised Explosive Devices (IEDs), and extensive improvements in the armor protection of armored and light-skinned vehicles. Typically, the REF cycle is measured in weeks, sometimes days, from when field commanders articulate a requirement until the Army provides a solution.

The accelerated fielding of selected capabilities through a spiral process will also include continued development and fielding of new capabilities associated with mature systems in the acquisition process. This includes fielding of additional Stryker Brigade Combat Teams (SBCTs) and the RFI to provide Soldiers with increased lethality, force protection, survivability, and communications. The Army is currently fielding systems at an unprecedented rate including systems to retain and improve situational dominance through comprehensive and joint-interoperable command, control, communications, computers, intelligence, surveillance and reconnaissance (C4ISR) architectures—Warfighter Information Network (WIN-T), the Joint Tactical Radio System (JTRS), Distributed Common Ground System-Army (DCGS-A), and Aerial Common Sensor (ACS); fielding of the Surface Launched Advanced Medium-Range Air-to-Air Missile (SLAMRAAM) and Patriot/Medium Extended Air Defense System (MEADS) to augment cruise missile defense; fielding digital battle command capabilities through systems such as the Force XXI Battle Command, Brigade and Below (FBCB2); accelerating crew protection and Aircraft Survivability Equipment (ASE) initiatives and adding an additional 800 helicopters as well as accelerating Unmanned Aerial Vehicles (UAVs).

f. Aviation Transformation

The Army is also transforming its aviation forces to become a modular, capabilities based maneuver arm that is optimized to operate within the context of joint operations. The Army aviation transformation strategy corrects a previous imbalance between capability requirements and modernization plans. This transformation is not without cost. To fund and accelerate comprehensive transformation of the existing aviation fleet, the Army cancelled the Comanche program. As a result of Comanche cancellation, new aircraft programs were initiated that will build over 800 aircraft—the Armed Reconnaissance Helicopter, the Light Utility Helicopter, the Future Cargo Aircraft and additional Black Hawks and Chinooks.

g. Focused Logistics—Protecting Tactical Wheeled Vehicles

As an important part of the Army's responsibility to sustain the Joint Force with equipment and to provide protection against an adversary's effect on that force, the Army has taken action to protect its tactical wheeled vehicles. The highest priority is to provide such protection to our forces involved in ongoing operations in Iraq and Afghanistan, though integrated efforts will be both short and long term in their impact. The immediate goal is to provide some type of armor protection to all tactical wheeled vehicles operating in these theaters. To help accomplish this, the Army has established an Armoring Task Force with the purpose of

identifying requirements, developing an integrated strategy, determining ways to accelerate production and installation of armor solutions, determining funding solutions, and identifying a longer-term strategy.

The Army is using three distinct levels of armor protection that are being provided to tactical wheeled vehicles. Level I, refers to fully integrated armor installed during production and retrofit. Level II includes officially approved add-on armor kits that can be installed on vehicles, either in the United States or in the theater of operations. Level III includes locally fabricated armor using approved steel, which provides added protection as an interim measure until a level I or II kit can be applied. Efforts are ongoing to assess and test other technological improvements, to ensure that all tactical wheeled vehicles involved in operational missions are equipped with the best protection available.

2. Future Force—Enhanced Capabilities

The primary goal of Army transformation is the development of the Future Force, which will be a strategically responsive, precision maneuver force that will achieve dominance across the full range of military land operations in any future conflict as an integral part of a truly Joint Force. Our Future Force is being designed to expand options available to the Joint Force in a wide array of possible scenarios. The Future Force will be balanced across a mix of light, medium and heavy formations and optimized for strategic versatility—able to perform seamless transitions from peacetime readiness missions to small-scale contingencies to major theater warfare.

The foundation of our Future Force is the Brigade Combat Team equipped with the Future Combat System (FCS). The FCS concept itself represents a paradigm shift in land combat operations. It is a system of systems whose capabilities exceed the sum of its parts. The FCS has been designed so that each part of the system is networked to achieve an unprecedented synergy. FCS comprises 18 manned and unmanned platforms that are centered on the Soldier and linked together with a fully integrated network, providing interoperability with joint and coalition forces. FCS will provide our Soldiers greatly enhanced situational awareness, enabling them to see first, understand first, act first and finish decisively.

E. Army Plan to Achieve Full Compatibility between AC and RC

The Army maintains a doctrinally integrated series of organizational designs for the purpose of achieving operational compatibility between types and echelons of units. Every effort is made to equip and modernize the AC and RC so that they remain an integrated team. Due to constrained resources, incremental improvements have been determined based on the first-to-fight/first-to-equip principle.

Reserve Component forces will maintain capabilities compatible with the units they support through the selective cascading of equipment from the AC. Limitations in the Current Force recapitalization and modernization effort, resulting from difficult decisions made to fully fund Future Force and Stryker programs, may delay the modernization of the RC forces that rely on cascading. This delay, however, is a necessary risk required to meet the Army's objective of a

future transformed force and to support overall DoD transformation goals while still preserving and upgrading the readiness of the Current Force.

Since 1998, the Army has increased their annual budgets for the RC and Congress has added more money for RC specific equipment. Despite these increases, the RC still has significant equipment shortages, especially in the most modern equipment. Consequently, the RC must increasingly rely on limited overhaul and rebuild programs of existing equipment to maintain mission capabilities.

Since 1997 ARNG and Army Reserve projected procurement has been included in the FYDP. The intent is to provide visibility of funds for improvements in equipment compatibility between the AC and RC.

F. Equipment On-Hand Substitutes

The equipment on-hand in *Table 1* includes authorized substitute equipment. Substitute LINs are reported as assets on-hand and are included in equipment totals for unit status reporting purposes. Army regulations define authorized substitutes as any piece of equipment that is able to perform the same function and purpose as the authorized equipment, but generally not to the same level of performance and efficiency. If substitute items of equipment are used, they are listed along with the quantity and item substituting for the prime LIN in *Table 7*.

An authorized substitute item, which is designated as on-hand equipment, does not exempt the unit from placing the authorized equipment on a valid requisition. Therefore, the requirement for the authorized item is still valid. Inclusion of authorized substitutes tends to skew the shortages of primary equipment, but better depicts a more accurate equipment status of the RC. Without the use of authorized substitute equipment, the Army's equipment posture, both AC and RC, would be degraded.

II. Army National Guard (ARNG) Overview

A. Current Status of the ARNG

1. General Overview

The ARNG is currently providing support in Global War on Terrorism (GWOT) operations such as Operation Iraqi Freedom (OIF) and Operation Enduring Freedom (OEF) in Afghanistan. The requirement to mobilize and deploy forces has consistently been met but has required extensive cross leveling of equipment to fill shortages. The absence of equipment for various reasons has had an affect on the overall Equipment On-hand (EOH) readiness of the ARNG. The most significant impact is on the Homeland Defense (HLD) and Homeland Security (HLS) mission. The ARNG has highlighted its concerns with the Army staff and is actively working possible solutions to rapidly return equipment to the owning unit/state. The equipment left in theater as SBE will now be left indefinitely in theater as Theater Provided Equipment (TPE). The resulting critical shortages of equipment in the ARNG are addressed in more detail later in this report.

To modernize the ARNG and transform ARNG formations into an expeditionary force, the Army is currently restructuring almost all of the ARNG's combat units and associated support units into modular units in accordance with the Army Campaign Plan (ACP). The effort to reorganize the ARNG began in FY 2005 and will be completed in FY 2008, with equipment deliveries continuing through FY 2012. This transformation better organizes and equips the ARNG units for contingency and HLD/HLS, as well as State missions. Under the ACP, the Army will modernize and equip the ARNG combat units as Brigade Combat Teams (BCT) and Division headquarters. The overall plan will organize 6 Heavy BCTs, 21 Infantry BCTs, one Stryker BCT (already programmed for the 56th BDE in PA ARNG) and six divisional command and control headquarters. Additionally, there will be 10 Sustainment brigades, 7 Aviation brigades, six supporting Fires brigades and 14 Maneuver Enhancement Brigades. Each division with its support units, will be able to support up to five BCTs.

Transforming ARNG units are phased in under the Army Force Generation Model. Under this model, units will activate under the new organization at roughly 65 percent of equipment requirements and be resourced with additional equipment over the next 24 months. Individual and Collective Training requirements are programmed with the equipment requirements ensuring that by the end of the fifth year, ARNG units will be validated and ready for deployment during the sixth year.

Additionally, the Army continues to modernize the ARNG under Phase 2 of the Army Division Redesign Study which converts combat units into combat support and combat service support units. The last two programmed years are FYs 2006 and 2007.

The ARNG's equipping priorities are to deployed units, mobilizing units, alerted units and HLD/HLS missions, units undergoing modular transformation, and returning units.

Even with the increase in Army funding for transformation, the ARNG will continue to rely on congressional adds and National Guard and Reserve Equipment Appropriation (NGREA)

funding to procure equipment to fill the shortages for near term mobilizations, replace equipment lost to SBE or TPE and to fill critical HLD/HLS requirements.

2. Status of Equipment

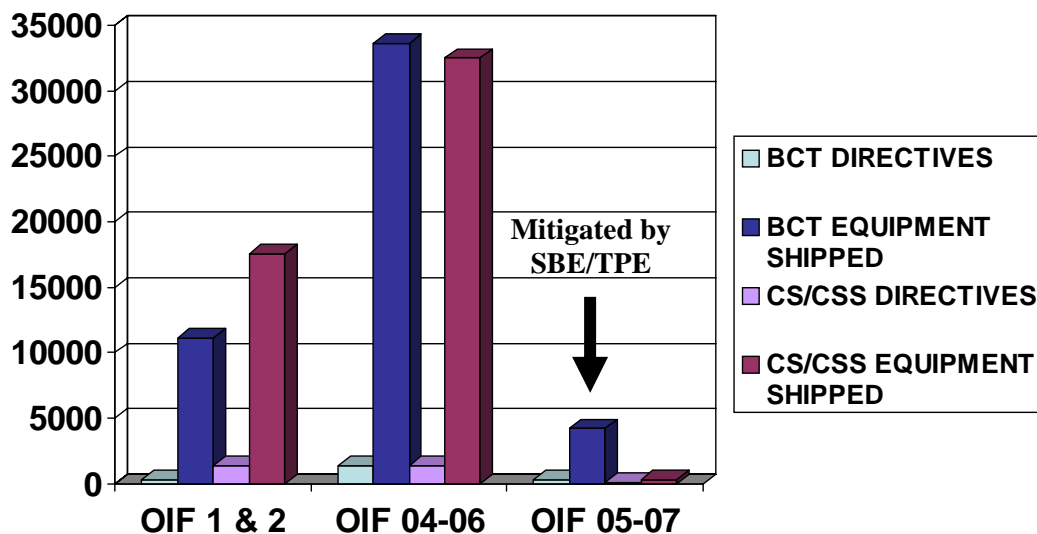
a. Equipment On-Hand (EOH):

In the past, the ARNG has not been fully resourced with equipment. The shortfall is in EOH and compatibility. The compatibility issue will be discussed in another paragraph but its importance affects EOH. The Army provides guidance on what equipment is considered to be an authorized substitute for primary equipment. While substitutes can be counted in determining EOH, the reality is that much of the substitute equipment does not deploy because it is not the most modern and capable equipment. The goal is to have troops being deployed into combat equipped with the best equipment possible. The ARNG has had many units resourced below 70 percent for EOH but were required to mobilize units at 90 to 100 percent for all items of equipment. It has required cross leveling within the ARNG to fill EOH shortages. The ARNG tracks State to State directed transfers, but not internal state transfers. Since the start of the war over 102,000 items have been directed to be cross leveled between States for the ARNG.

The cross leveling has presented a challenge for the ARNG to meet mobilization requirements. Donor unit EOH is immediately affected by the loss of equipment, and the ability of units to continue to train without necessary equipment becomes both a unit and State challenge. There is also a cost to the donor State for packaging the equipment for shipment, and shipping the equipment to the gaining unit. While cross leveling has allowed the ARNG to meet its requirements, the constant cross leveling has been both a financial and a manpower challenge.

As shown in the chart below, the latest rotations are heavily reliant on SBE and TPE. While this minimizes the cross leveling requirement for equipment it also means more of the ARNG's equipment is now indefinitely being used in theater and is not available to train and equip CONUS ARNG units.

*CHART 1 Cross Leveling the ARNG
November 2002–June 2005 (OIF 1–OIF 05-07)
State-to-State ARNG Directed Transfers*



As stated earlier, ARNG units mobilizing and deploying to OIF/OEF are required to deploy with 100% of authorized equipment and in many cases, supplemented with mission unique equipment. In order to accomplish this, the following process is followed. Units are alerted with pre-existing EOH shortages. The Army determines if units will deploy with their full authorization of equipment or less, and what equipment in theater is available for the unit to use. The unit then determines what shortages it has to meet mobilization requirements. In some cases units have deployed with more than their authorization due to operational requirements determined by unit commanders. The State reports the unit's shortages to the ARNG and the ARNG directs cross leveling from other States to fill the shortages or the shortages are filled by the Army.

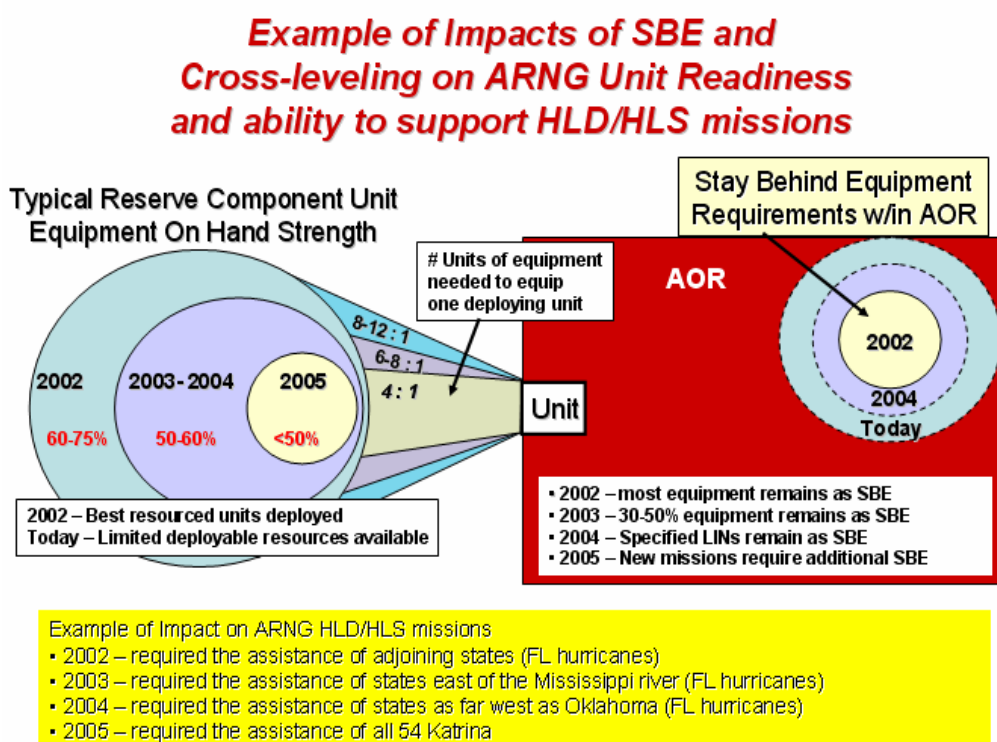
During re-deployment some units are required to leave all or some of their equipment as SBE for follow-on forces of all components and services to use. The units then re-deploy with EOH shortages. If the Army does not provide an immediate pay back then the ARNG will cross level equipment, if possible, from other States to bring the redeployed unit back to 65 percent EOH. This allows the unit to continue to train and to support HLD/HLS missions.

The result of SBE and cross leveling has been a reduction of EOH, primarily in trucks, radios, crew served weapons and night vision devices. For each subsequent rotation cross leveling becomes more challenging since every unit's EOH is now below prewar levels, and the SBE equipment is not being returned. Beginning in FY 2006, the ARNG will see an increase of equipment provided to the ARNG through new procurement, cascaded and reset equipment that will continue across the budgeted years to FY 2011. This increase will transform most units and increase EOH across all units.

The chart below depicts the cross leveling challenge. In 2002, on average, it took equipment from four units to fill the shortages of one mobilizing unit. In 2005 that ratio

increased to 8 to 12 units to fill the shortages of one mobilizing unit. As shown in the chart below this is especially critical for support missions such as hurricane relief where regions of a State may lack capability because of deployed units or unit EOH shortages. Previous experience demonstrates that cross leveling to fill critical shortages for relief and support missions becomes more of a challenge when trying to move equipment into a State from other States after a storm hits and roads are blocked and transportation is limited. The ARNG is actively working to ensure critical HLD/HLS equipment is on hand throughout the States and available prior to a crisis.

CHART 2. Example of Impacts of SBE and Cross-leveling on ARNG Unit Readiness and Ability to HLD/HLS Missions



AOR: Area of Responsibility

Some of the critical HLD/HLS shortages are trucks (especially HMMWVs), engineer equipment, SINCGARS radios, generators and night vision devices. Mobilization shortages are still primarily Chemical Monitors, Chemical Decon Apparatus, PVS-7 & PVS-14 Night Vision Goggles, PAS-13 Thermal Weapons Sights, M4 Carbines, M240B Machine Guns, M872 34T semi-trailers, 20/40 foot container top handlers, and SINCGARS radios.

The ARNG is working with the Army to maintain accountability of ARNG equipment that has become SBE/TPE and to develop return or replacement plans. Since the SBE directive began for OIF and OEF, the ARNG has been directed to leave over 75, 000 items valued at \$1.76B. The replacement plans for this equipment are still being finalized by the Army.

b. Average Age of Major Items of Equipment

See *Table 2*. The majority of the ARNG's equipment was received through cascade from the AC and was already near the end of its projected service life. The ARNG relies heavily on its depot maintenance programs to prolong the life of this older equipment and keep readiness rates at or near the Army's standards. The shortage of maintenance technicians and the persistent shortage of repair parts for older equipment add to the units' burden to maintain older systems. One of the ARNG's primary compatibility concerns is that the primary systems are aging faster than they can be replaced or rebuilt.

c. Compatibility of Current Equipment with AC

The Army modular transformation plan will modernize a majority of the ARNG. The GWOT deployments primarily to OIF and OEF continue to demonstrate the compatibility issues. It is difficult to locate repair parts for systems no longer in the AC system. In addition, obsolete equipment is less interoperable with modern equipment in the AC. For example, many communications and electronic systems are not interoperable and have less capability as the systems being used by the AC on the battlefield. Combatant commanders restrict the older equipment from theater. The following equipment is considered as nondeployable by the Army: CUCVs (commercial light 4x4 from 1980's subs for HMMWVs), 800 series 5-tons (subs for FMTVs or 900 series 5 tons), VRC-12 radios (subs for SINCGARS), PVS-5 and older night vision devices (subs for PVS- 7 & PVS-14), and the Dragon anti-tank guided missile launch system (subs for Javelin anti-tank missile system).

The excessive amount of cross leveling and the high percentage of SBE/TPE are good indicators of the compatibility problem with the current ARNG equipment and the missions it is required to support. Almost all of the ARNG's support units' high technology and modern equipment was left as SBE/TPE after the first two rotations. Much of the remaining equipment in the ARNG inventory is considered non-deployable due to its age or lack of compatibility with equipment being utilized by the AC and the lack of a support structure in theater to support obsolete equipment.

d. Maintenance Issues

While the ARNG continues to maintain equipment to the Technical Manual 10/20 standard, the mobilization and shortage of key State maintenance technicians, and repair part problems create maintenance readiness challenges. Maintenance surges to meet mobilization requirements are accomplished with normal limited peacetime OPTEMPO funding; pending the release of operational funds.

The majority of ARNG equipment, primarily trucks and combat tracked system that remain in CONUS, are older models which have a scarcity of repair parts. *Table 2* indicates the average age of equipment, and as noted, a large percentage of the ARNG's fleet of rolling stock is considered non-deployable and in some cases obsolete.

The ARNG is dependent on Army depot maintenance funding to maintain its readiness. Currently, the ARNG depot maintenance program is funded at \$360.7M or 93 percent of its total

requirement in FY 2007. Funding for the total program averages 92 percent from FY 2007 through FY 2009 .

Tactical Wheeled Vehicle (TWV) funding increases from \$136M in FY 2007 to \$189.4M in FY 2011. This program is funded at almost 100 percent of requirements from FY 2007 through FY 2011. ARNG funding for the category known as “other equipment” increases from \$36.9M in FY 2007 to \$42.4M in FY 2011 for an average of 86 percent. This funding supports calibration programs, depot maintenance of construction and engineering equipment, weapons, and watercraft.

ARNG depot maintenance for aviation programs is funded at an average of 96 percent of requirements in FY 2007 through FY 2009. ARNG depot funding for communications and electronics equipment averages 85 percent while funding for missile systems averages 77 percent of total requirements over this same period. Depot funding for combat vehicles averages 69 percent from FY 2007 through FY 2009.

The ARNG will continue to rely on Army funding and congressional supplemental funding to procure modern equipment as replacements. Depot maintenance will remain a challenge until the older/obsolete equipment is eliminated from the inventory. The ARNG’s immediate goal is to eliminate the 5,402 M800 series 5 ton trucks and 13,753 M35 series 2 ½ ton trucks that are non-deployable and considered obsolete. The decrease in reliability of these vehicles has created challenges in the HLD/HLS mission areas as well. Modular conversion will fund most of the replacements but because of the growth in requirements for wheeled vehicles, the ARNG will continue to remain dependent on congressional additions to Army funding and NGREA procurement.

e. Modernization Programs and Shortfalls

Listed below are the some of the ARNG’s top modernization shortages which are also listed in *Table 8*. These systems all have unfunded requirements that are not currently projected to be filled through Army procurement for modularity, and NGREA or congressional adds.

i. High Mobility Multipurpose Wheeled Vehicle (HMMWV)

The HMMWV is produced in several configurations to support weapons systems, command and control systems, field ambulances and utility vehicles. The Armored HMMWV has organic armor that can protect soldiers from most anti-tank mines and small arms fire up to 7.62mm. Since the beginning of the war, almost all new procurement HMMWVs have been diverted to support the war, especially all M1114 Up-Armored HMMWVs. The ARNG pre-war shortage of HMMWVs was in excess of 10,000. Since the beginning of OIF, over 1,700 ARNG HMMWVs have been deemed as permanent SBE/TPE that will remain in the combat theater until the war ends, along with another 400 that are earmarked as SBE for at least one rotation. The ARNG additionally has another 400 HMMWVs committed to long time training missions for mobilizing units. All told, the ARNG shortage has increased to over 13,000 HMMWVs. The Army plans that the majority of the shortages will be filled through modular transformation. The two new models of HMMWV now being produced are the M1151 Utility Vehicle and M1152 Weapons Carrier, both of which are ready to add armor as required.

ii. Family of Medium Tactical Vehicles (FMTV)

The FMTV consists of the Light Medium Tactical Vehicle (LMTV) or 2-½ ton vehicle fleet and the Medium Tactical Vehicle (MTV) Family 5 Ton Variants. The LMTV comes in cargo vehicle variants and has been partially fielded to the ARNG, primarily to newly activating units. The MTV variants consist of cargo vehicles of various types, a wrecker, and a five ton tractor (M1088) that pulls the M871A3 Stake and Platform Trailer. The FMTV is the essential supply and recovery vehicles for ARNG units and forms the nucleus of support operations in separate brigades and all divisions and are essential components for all force modernization objectives. Under Army modernization of the medium truck fleet the plan is to replace the obsolete systems such as the M35 series 2 ½ ton truck by FY 2010 and the M800 5 ton cargo and variants by FY 2015 and the M900 series 5 ton variants beyond FY 2020. The older model trucks will continue to remain a readiness issue because of increased maintenance activity due to the age of the fleet (20-35 years) and the difficulty in obtaining repair parts as these systems are eliminated from the AC inventory.

iii. Single Channel Ground and Airborne Radio System (SINCGARS)

SINCGARS is the tactical radio system used for unit reporting and command and control. SINCGARS requirements continue to increase due to the operational requirements for OIF and OEF that add additional dual radio systems to more vehicles than were originally required. The SINCGARS is the Army's tactical communication standard for tactical secure communications for aircraft and ground vehicles and is expected to remain in the Army inventory for another 20 years. SINCGARS is another critical system that remains in theater as SBE and is also a component of the training sets. The Army plans to field the new requirements to ARNG modular transformation but the existing units that have not been fielded SINCGARS will remain as an unfunded requirement of 18,000 systems through FY 2010. The Army has recognized the current shortage in SINCGARS and has increased funding and production to provide equipment for ARNG annual training and HLD/HLS requirements.

iv. Small Arms Modernization

The four major small arms weapon systems which are key to modernization for the ARNG are M4 carbine, the M249 Squad Automatic Weapon (SAW), the M240B Medium Machine Gun and the MK-19 40mm Grenade Machine Gun. The requirement for these systems has sharply increased due to the GWOT and Army Transformation. The M4 Carbine is a compact, light weight, shoulder fired weapon that provides excellent close range fire power while also providing the necessary capability to engage targets at longer ranges with pin-point accuracy. The M4 is capable of mounting accessories such as laser aiming devices and infrared lights, flash lights, and optical scopes. It replaces the obsolete M16A1 and M16A2 rifles. The Army's next generation XM-8 Modular Assault Weapon System will eventually start fielding to the AC possibly as early as FY 2008.

The M249 SAW is a battle-proven weapon which provides sustained accurate fires for infantry squads and as a support weapon. The M240B is the modern replacement for the Vietnam era M60 medium machine gun. It is more reliable and has a higher rate of fire. The MK-19 replaces or augments the M2 50.cal machine gun and provides intense suppressive fire against enemy personnel and lightly armored vehicles. All four of these systems have been documented

by commanders on the ground as critical in the GWOT resulting in an increased requirement for these weapons. Additionally, these weapons are typically designated as SBE which generates shortages in equipment for returning units and adversely impacts training capability and the ability of the ARNG to cross level to fill new EOH shortages for deploying units. The ARNG is working with the Army to receive more M4s and M240Bs and is using NGREA funds to procure several thousand M4s and several hundred M240Bs for issue as replacement weapons for units in Iraq and Afghanistan

A critical accessory for the M16A4 or M4 is the PEQ-2A infrared illuminator/pointer which is mounted on the weapon and provides the ability to illuminate targets at close range with a light that is observable only through night vision goggles. The ARNG is short over 10,000 of these devices and will continue to use NGREA to procure PEQ-2s for ARNG mobilizations.

v. Night Vision Devices: Night Vision Goggles (NVG) and Thermal Weapon Sights

Night vision devices are critical to the Army's ability to seek and engage targets under the cover of darkness and in low light conditions in buildings and caves. The PVS-14 and PVS-7D are the individual goggles used by both combat forces and support forces. The ARNG is short over 110,000 of these devices based on current requirements which include adjustments for modular transformation. The AN/PAS-13 Thermal Weapon Sight comes in a light configuration for individual rifles and a medium and heavy configuration to be used on crew served weapons such as those mentioned above. It is an advanced infrared weapon sight now being fielded to the Army as a modern replacement weapon sight for the TVS-5 and to fill existing shortages. This sight is a state-of-the-art night sight that requires no visible light to operate and it cannot be detected because it emits no heat or radio frequency energy. The AN/PAS-13 can also see through other obscurants such as smoke, rain, fog and dust. This new sight is a critical requirement for operations in Iraq and Afghanistan and the ARNG is requesting early fielding for combat brigades scheduled for deployment to those areas. The ARNG is using NGREA funds to procure systems to provide training capability for the BCTs prior to deployment and to fill critical shortages for deploying units.

vi. M22 ACADA Chemical Alarm/Detector

The M22 is an advanced point-sampling, chemical-agent alarm system that is capable of detecting, warning and identifying standard blister and nerve agents simultaneously. Man-portable, it operates independently after system start-up. The M22 replaces the M8A1 Alarm as an automatic point detector and augments the Improved Chemical Agent Monitor as a survey instrument. The ARNG is currently short 17,154 M22s. It is a critical system for the GWOT and provides the same full spectrum capability for the ARNG as the AC has. This system is also considered critical for use in HLD/HLS missions.

vii. Heavy Expanded-Mobility Tactical Truck (HEMTT)/Load Handling System (LHS)

The HEMTT family consists of the 2,500 gallon fuel truck, the cargo truck and the LHS cargo model, and the wrecker. The HEMTT family is the primary work horse for logistic support for heavy units and there is no viable substitute to fill shortages. The Army plans on filling shortages caused by modular transformation by procuring new systems and the repair and reset of existing systems. Without new procurement, ARNG shortages cannot be filled and the

procurement plan is very dependent on supplemental funding. These systems are critical for GWOT as well as for HLD/HLS missions. The ARNG plans on using NGREA to continue to fill the unfunded shortages.

f. Overall Equipment Readiness

The ARNG's equipping priorities are: 1. deployed units, 2. mobilizing units, 3. alerted forces, 4. units undergoing modular transformation, and 5. returning units. The ARNG treats the HLD/HLS security mission on par with mobilizing units. The challenge, in this era of SBE, is retaining sufficient EOH for those soldiers remaining at home so that they can perform these no-notice missions. The average EOH of the ARNG's units has dropped as a result of requirements to cross-level equipment to fill shortages for mobilizing ARNG units

g. Other Equipment Specific Issues

The ARNG is becoming more heavily dependent on Training Aids, Devices, Simulators, and Simulations (TADSS) and possibly equipment training sets to ensure effective training until modern equipment is fielded to all States. TADSS are extensively used by the ARNG to overcome limited training time, ammunition, ranges, and qualified trainers to support mobilizations and deployments. Devices such as the Armor Full Crew Interactive Simulator, Bradley Fire Support Team, and Engagement Skills Trainer 2000 provide a training baseline for Inactive Duty Training at home station and do not require the resource-intensive activities of firing live rounds, traveling to and from training areas, and competing for ranges. In FY 2005, the ARNG used NGREA funds to procure HMMWV Convoy Trainer systems to train units for mobilization to provide real lessons learned in a virtual convoy trainer mode. Using these technologies, soldiers can conduct preliminary gunnery and maneuver training so they maximize live training events during Annual Training. Training of the ARNG is different from the AC because of geographic dispersion of units and the limited training time available to our soldiers. TADSS provide unique solutions to meet the training requirements of the ARNG.

B. Changes Since Last NGRER

The Army has agreed to accelerate the transformation of ARNG units to the modular force by completing the conversion of all six division headquarters, all 28 Brigade Combat Teams and the associated support units under a six year plan. This acceleration will reorganize the units faster and allow them to begin reorganizing, recruiting and conducting Military Occupational Skill training earlier than originally planned.

C. Future Years Program (FY 2007–FY 2009)

All ARNG units undergoing modular transformation will convert by FY 2010. ARNG Division Redesign Study, Phase II will be completed in FY 2007 and much of the equipment for Phase II is scheduled to be fielded in FY 2007 and FY 2008. Conversion of the 56th Infantry Brigade in the Pennsylvania ARNG to a Stryker Brigade is scheduled for completion in FY 2008.

1. FY 2009 Equipment Requirements

The majority of the equipment scheduled for procurement and delivery in FY 2009 will be for modular transformation. Although there is no formal cascade plan, each year the ARNG acquires equipment from the Army and on occasion other services. The Army plans to use equipment coming out of depot reset as well as new procurement to fill requirements.

2. Anticipated New Equipment Procurements

a. Tube Launched, Optically Tracked, Wire Command Link (TOW) Improved Target Acquisition System (ITAS) M41

The ITAS is a materiel change to the current ground TOW 2 weapon system for first-to-deploy light forces. The ITAS will increase target acquisition ranges and be able to fire all configurations of TOW missiles while allowing room for growth for follow-on missiles. The TOW ITAS is being fielded at battalion level, replacing TOW 2 in light infantry units. The ITAS modification kit consists of an integrated (day/night sight with laser range finder) target acquisition subsystem, fire-control subsystem, battery power source and modified traversing unit. The TOW ITAS will operate from the HMMWV and the dismounted tripod platform. The Army is in the process of completing fielding to its light forces and will field ITAS to the ARNG's Stryker Brigade until the Stryker Anti-Tank Guided Missile (ATGM) system is fielded. The remainder of all other ARNG light separate brigades and its light division will continue to use the TOW 2 Anti-Tank system until fielded ITAS under modular transformation.

b. Stryker

The eight-wheeled Stryker family of vehicles is the Army's first new armored vehicle to be fielded in 18 years. The primary design has two variants: the Infantry Carrier Vehicle (ICV) and Mobile Gun System (MGS). The ICV carries nine infantry soldiers and a crew of two. There are eight other variants of the basic ICV, which include a commander's vehicle, a fire-support vehicle, a mortar carrier, an anti tank guided missile (ATGM) vehicle, a medical evacuation vehicle and a nuclear, biological and chemical reconnaissance vehicle. The MGS is based on the ICV but has a 105mm turreted gun with an autoloader and a crew of three.

The vehicles are being fielded to six different Stryker Brigade Combat Teams (SBCT) between now and FY 2010. The sixth SBCT will be the 56th Infantry Brigade, of the 28th Infantry Division (Mechanized) from the Pennsylvania ARNG which is converting from a M113 based infantry brigade. The 56th SBCT is currently undergoing base modernization of its equipment, and then will undergo the Army Unit Set Fielding that will equip the brigade with Stryker vehicles, digital command and control suites, and other state of the art systems by FY 2008.

c. Tactical Unmanned Aerial Vehicle (TUAV)

The TUAVs are aviation systems that provide commanders in hostile areas with real-time information where immediate feedback is needed, but manned aircraft are unavailable, or conditions make use of manned aircraft imprudent. The Shadow 200 is the TUAV being fielded to brigade combat teams, Stryker brigades, and Armored Cavalry Regiments. The system comes with three air vehicles, launch and recovery equipment and ground control stations and data

terminals. The first two units to be fielded in the ARNG were the 56th Stryker Brigade and the 629th MI BN in FY 2004 for deployment to OIF. The two platoon sets will remain as stay behind systems with follow on platoons deployed to operate the systems. The ARNG procured a system with FY 2004 NGREA to provide a training set for platoons scheduled for deployment to operate the systems in theater.

3. Anticipated Transfers from AC to ARNG

The Army is developing projections for equipment expected to be transferred to the ARNG for FY 2007. Equipment for modular transformation will be from new procurement and equipment issued from depot rebuild or repair programs. The ARNG staff is actively working with the Army staff to determine if equipment will be cascaded to fill modular conversion requirements in addition to new procurement. If equipment is cascaded to the ARNG, the condition of the equipment and the decision on how much will be submitted through reset prior to cascade to the ARNG will be critical in modernizing the ARNG inventory. Potential cascaded equipment is shown below:

- Combat Tracked Vehicles: M2A2ODS and Bradley Fighting Vehicles, M3A2ODS Cavalry Fighting Vehicles, M113A3 Armored Personnel Carriers.
- Tactical Wheeled Vehicles: Reset FMTV, Reset M900 series 5 ton truck variants, Reset HMMWVs, HEMMT basic model variants, Heavy trucks such as Heavy Equipment Transport (HET), M900 series line haul tractors and trailers, tracked and wheeled engineer equipment.
- Communications and Electronic Equipment: Non-Digitized early model SINCGARS radios.
- Power Generation: Diesel small, medium and large generators.
- UH-60: Blackhawk helicopters.
- M4 Carbines and M16A4 Rifles, M2, M249 and M240B Machine Guns.

4. Anticipated Withdrawals from ARNG Inventory

The ARNG anticipates receiving new, rebuilt/reset and cascaded equipment that will allow the withdrawal of the following models of obsolete equipment. Shown below are the systems considered as obsolete and scheduled to be replaced in comparison with the newer replacement system.

System	Replaced By
M35 2 ½ Ton Truck Variants	LMTV
M800-series 5 Ton Trucks	FMTV
CUCV Variants	HMMWV
M16A1 and M16A2 Rifles	M4 Carbines & M16A4 Rifles
M60 Machine Gun	M240B Machine Gun

System	Replaced By
M109A5 and earlier Howitzers	M109A6 & M1117 Towed Howitzers
M1 and M1A1 Tanks	M1A1 CEPS and M1A2 Tanks
M2 BFV	M2A2 ODS and M2A3 BFV
M3 BFV	M3A2 ODS and M3A3 BFV
M113 APC Variants	M113A3 and Digitized BFV
VRC-12 Series Radios	SINGARS ASIP Radio Systems
OH-58 Scout Helicopters	OH-58D Scout Helicopters or AH-64 Aircraft
UH-1 Utility Helicopters	UH-60 Black Hawk Helicopter Variants
PVS-4/5 Night Vision Goggles	PVS-14 Night Vision Goggles
Dragon Anti-Tank Systems	Javelin Anti-Tank Systems

5. Remaining Equipment Shortages and Modernization Shortfalls at the end of FY 2009

a. CBRNE (Chemical, Biological, Radiological, Nuclear, and Explosive)

Overall, we will continue to experience shortages of collective protection, decontamination, and detection systems. Primarily, we will experience shortages of Improved Chemical Agent Monitors (ICAM) and M22 Automatic Chemical Agent Alarms even with Army procurement for modular transformation. The primary goal is to procure sufficient quantities to support HLD/HLS as well as battlefield protection for deployed units and support to the GWOT. The ARNG has a total requirement for 7,810 ICAMs with only 408 on-hand. ICAMs are considered a critical HLD/HLS asset for each ARNG State and Territory.

b. Power Generation

The ARNG's primary goal in power generation is to eliminate the obsolete gasoline generators (single fuel requirement) and eliminate unreliable, obsolete models of diesel generators to improve readiness. Generators range from the smaller 3 and 5 kilowatt (KW) capable models up to the larger 30KW and 60KW models. The Tactical Quiet Generator (TQG) is being fielded by the Army to achieve these goals. The majority of the ARNG's TQG shortfall lies in the smaller 3KW and 5KW model. Current fielding of 5-60KW generators are primarily for high priority units. If funding remains constant, the completion of the fielding will take eight to ten years.

c. Aviation

The attack helicopter for the Army remains the AH-64 Apache. The Army is currently modifying its fleet to the AH-64D Longbow, although the majority of ARNG AH-64s will remain the AH-64A.

In the utility aircraft fleet the ARNG is predominately equipped with the UH-60A aircraft. The planned retirement of the UH-1 Huey was almost complete but has been postponed due to shortages in the UH-60 fleet.

The heavy lift cargo aircraft is the CH-47D with a modernization program to modify the fleet to the CH-47F. The ARNG is concerned that all of its CH-47Ds are not scheduled for the CH-47F modification.

The primary reconnaissance aircraft for the ARNG is the OH-58D Kiowa Warrior Armed Scout. The shortage of 12 OH-58Ds has been handled by placing AH-64A aircraft in the Calvary Squadrons as an in lieu of aircraft to provide armed reconnaissance capability.

Army planning continues for a commercial based Light Utility Helicopter and for the follow-on Armed Reconnaissance Helicopter that will modernize the Army and ARNG helicopter fleets.

d. Projected Equipment Shortages

The ARNG projects to have continuing shortages for the items listed below:

- Aviation: UH-60M Blackhawk, CH-47F Chinook Helicopter.
- Combat Vehicles: M2A2 ODS Bradley Fighting Vehicles.
- Communications and Electronic Equipment: Night Vision Devices, Thermal Weapons Sights, SINCGARS, Precision Lightweight GPS Receiver and Enhanced Position Location Reporting System.
- Missile Systems: Javelin & ITAS Anti-Tank Missile System, Sentinel Radars.
- Power Generation: small, medium and large diesel fueled tactical quiet generators.
- Tactical Wheeled Vehicles: FMTV, HMMWV variants including Up-Armored HMMWVs.
- Weapons (Crew Served and Individual): M2 Machine Guns, MK-19 Grenade Launcher, M240B Machine Gun, M249 Squad Automatic Weapon, M4 Carbines.

D. Summary/Conclusions

Over the past four years, the ARNG has proven itself capable of meeting the mission requirements placed on it by the American people. The ARNG has been actively engaged in the GWOT and has deployed more units and soldiers into the war fight than at any time since World War II. In addition, the ARNG reacted quickly and effectively in response to hurricanes Katrina, Rita, and Wilma. The ARNG has proven that it is an extremely good buy for the American people, bringing an effective force to bear on any mission. The effectiveness of the ARNG will only improve as it continues to undergo its most significant modernization since the early 1990s with modular transformation. Once this transformation is completed the ARNG will be fully compatible with the AC in modernization and capability. The Army continues to cross level equipment among units and has directed deploying units to fall on equipment remaining in theater as SBE to ensure all forward deployed units have the best equipment available. Although successful, these actions present considerable challenges for training and readiness of both non-

deployed ARNG units and ARNG units returning home. The ARNG's priorities for equipment will continue to be to deployed forces, mobilizing units, alerted units, modular transformation and returning forces. HLD/HLS missions will receive the same priority as mobilizing units. The ARNG will continue to be reliant on congressional additions to the budget to fully resource modular transformation and modernization.

Consolidated Major Item Inventory and Requirements

NOTE: This table provides a comprehensive list of selected major items of equipment. It provides the quantity on-hand (QTY O/H) projected to be in the inventory at the beginning/end of the selected fiscal year (FY). It also provides the quantity required (QTY REQ) needed to meet the full wartime requirements of the Reserve component. In accordance with Title 10, the QTY REQ number provides the recommendations as to the quantity and type of equipment which should be in the inventory of each Reserve component. Unit cost values are in dollars.

Nomenclature	Equip No.	FY 2007 Unit Cost	Begin FY 2007 QTY O/H	Begin FY 2008 QTY O/H	Begin FY 2009 QTY O/H	End FY 2009 QTY O/H	End FY 2009 QTY REQ
ROTARY WING AIRCRAFT							
HELICOPTER, ATTACK AH-64A (APACHE)	H28647	17,000,000	150	150	126	118	118
HELICOPTER, ATTACK AH-64D (APACHE)	H48918	30,000,000	24	24	48	56	56
HELICOPTER, CARGO CH-47D (CHINOOK)	H30517	31,500,000	131	131	131	131	159
HELICOPTER, OBSERVATION OH-58A (KIOWA)	K31042	190,000	203	200	200	200	200
HELICOPTER, OBSERVATION OH-58C (KIOWA)	H31110	150,000	74	20	30	30	30
HELICOPTER, OBSERVATION, OH-58D (KIOWA)	A21633	5,000,000	24	30	30	30	30
HELICOPTER, UTILITY UH-1H (IROQUOIS)	K31795	923,000	50	49	47	45	44
HELICOPTER, UTILITY UH-1V (IROQUOIS)	H31872	950,000	55	53	52	51	49
HELICOPTER, UTILITY UH-60A (BLACK HAWK)	K32293	4,600,000	491	511	531	551	526
HELICOPTER, UTILITY UH-60L (BLACK HAWK)	H32361	4,900,000	142	154	154	154	184
UH-60A EXTERNAL STORES SUBS	E21985	680,000	107	107	107	107	360
FIXED WING AIRCRAFT							
AIRPLANE, CARGO, TRANSPORT, C-12D	A29812	1,967,301	8	8	8	8	1
AIRPLANE, CARGO, C-12	A30062	3,068,422	23	31	31	31	45
AIRPLANE, CARGO, C-23	A29880	7,424,158	40	40	40	40	38
AIRPLANE, CARGO, TRANSPORT, C-26	A46758	800,000	8	8	8	8	11
MISSILES							
FIRE UNIT VEHICLE MOUNTED, AVENGER	F57713	1,090,277	326	326	326	326	254
MULTIPLE LAUNCH ROCKET SYSTEM (MLRS)	L44894	1,055,696	314	314	314	314	0
DRAGON TRACKER, ANTI-TANK GM	W80715	14,978	1,687	1,687	1,687	1,687	210
LAUNCHER, TOW II ATGM M220A1	L45740	133,000	993	993	993	993	228
COMMUNICATIONS EQUIPMENT							
RADIO SET AN/ARC-114	Q25990	20,857	112	112	145	145	143
RADIO SET AN/VRC-92A (SINCGARS)	R45407	21,238	4,300	4,636	6,500	6,501	5,341
RADIO SET AN/VRC-87A (SINCGARS)	R67160	12,109	1,981	1,981	1,981	1,981	213
RADIO SET AN/VRC-88A (SINCGARS)	R67194	12,519	6,029	6,288	6,638	6,638	1,446
RADIO SET AN/VRC-89A (SINCGARS)	R44863	22,822	4,270	4,512	4,945	4,960	1,768
RADIO SET AN/VRC-90A (SINCGARS)	R67908	13,178	13,618	15,074	17,711	17,789	13,255
RADIO SET AN/VRC-91A (SINCGARS)	R68010	23,249	4,621	4,621	4,621	4,621	4,079
RADIO SET AN/VRC-119A (SINCGARS)	R83005	10,117	5,140	5,505	6,442	6,442	3,712
RADIO SET AN/PRC-112	R82903	6,018	1,863	1,933	1,933	1,933	5,099
GUN LAYING POSITIONING SYSTEM	G97730	96,400	283	283	283	283	224
CHEMICAL DEFENSIVE EQUIPMENT							
ALARM, CHEMICAL AGENT, AUTOMATIC, M8A1	A32355	8,432	14,338	14,338	14,338	14,338	8,040

ARNG

Table 1

Consolidated Major Item Inventory and Requirements

Nomenclature	Equip No.	FY 2007 Unit Cost	Begin FY 2007 QTY O/H	Begin FY 2008 QTY O/H	Begin FY 2009 QTY O/H	End FY 2009 QTY O/H	End FY 2009 QTY REQ
ALARM CHEM DET M22	A33020	10,000	2,367	2,615	2,615	2,615	11,433
MASK,CHEMICAL BIOLOGICAL M40	M12418	202	373,548	399,815	433,478	434,760	268,874
MASK,PROTECTIVE,COMBAT VEHICLE M42	M18526	640	51,918	55,219	56,355	56,355	26,157
CONSTRUCTION EQUIPMENT							
BRIDGE ARMORED VEHICLE,SCISSOR TYPE	C20414	87,742	271	271	271	271	91
COMPACTOR, HIGH SPEED	E61618	135,186	114	114	114	114	103
CRANE,WHEEL MOUNTED,20T	F39378	162,393	0	0	0	0	31
CRANE-SHOVEL, CRAWLER MOUNTED	F40474	270,000	2	2	2	2	2
ATEC CRANE	F43429	160,953	55	55	55	55	121
GRADER, ROAD, MOTORIZED	J74852	129,684	1	1	1	1	20
INTERIOR BAY BRIDGE, FLOATING	K97376	62,910	214	219	245	245	307
ASPHALT PLANT	M57048	1,254,600	1	1	1	1	17
VIBRATOR ROLLER	S12916	45,183	70	70	70	70	58
TRACTOR, WHLD EXCAVATOR	T34437	110,000	691	691	691	691	442
TRACTOR, FULL-TRACKED, HIGH SPEED, M9	W76473	887,050	42	42	42	42	29
TRACTOR, FULL-TRACKED, LOW SPEED	W76816	205,000	660	660	660	660	482
TRACTOR, FULL-TRACKED, LOW SPEED, DED, MED	W83529	245,275	342	342	342	342	387
ELECTRICAL GENERATION							
GENERATOR SET, DSL ENG, TM, 10KW, 60HZ, MTD ON M116 PU	G40744	12,102	947	947	947	947	254
GENERATOR SET, DSL ENG, SKID MTD, 3KW, 60HZ, AC, 120/208	G54041	6,459	3,027	3,027	3,027	3,027	2,405
GENERATOR SET, DIESEL ENGINE, 30KW	J36383	20,810	469	469	470	470	112
OTHER PROCUREMENT							
AVIATION NIGHT VISION GOGGLE, AN/AVS-6	A06352	10,747	4,544	4,544	4,544	4,544	4,204
MONOCULAR, NIGHT VISION, PVS-14	M79678	3,607	50,289	67,363	89,099	89,099	19,250
NIGHT VISION GOGGLES AN/PVS-5	N04456	4,300	31,121	31,123	31,123	31,123	4,563
NIGHT VISION SIGHT, CREW SERV WPN, AN/TVS-5	N04596	3,500	6,283	6,283	6,283	6,283	13,345
NIGHT VISION DEVICE, AN/PVS-4 WMG (WEAPON)	N04732	8,535	27,771	27,867	27,869	27,869	9,673
NIGHT VISION GOGGLES, AN/PVS-7B	N05482	3,578	61,871	72,151	85,398	86,212	183,671
METEOROLOGICAL MEASURING SET/TMQ-41	M35941	640,273	37	37	37	37	10
MELIOS PVS-6 EYE SAFE LASER OBSERVATION	M74849	22,015	1,623	1,623	1,623	1,623	10,266
NIGHT SIGHT, TOW II ANTI-TANK SYSTEM, AN/VAS UAS-12	N04982	116,014	1,055	1,055	1,055	1,055	108
NIGHT VISION SIGHT, AN/UAS-11(V)1	N05050	68,000	72	74	75	75	126
NAVIGATION SYSTEM, PSN-11	N95862	2,051	33,372	33,937	33,937	33,937	25,637
POSITION AZIMUTH DETECTION SYSTEM	P21220	299,115	189	189	189	189	38
EPLRS (ENHANCED POSITION LOCATION RADIO SYS)	P49587	49,600	1,785	2,139	3,070	3,071	2,821
RADAR SET, AN/TPQ-36(V)	R14148	3,760,576	10	10	10	10	0
ROPU WATER PURIFICATION SYSTEM, 3000 GPH	W47225	748,000	84	84	84	84	32
TACTICAL VEHICLES							

Consolidated Major Item Inventory and Requirements

Nomenclature	Equip No.	FY 2007 Unit Cost	Begin FY 2007 QTY O/H	Begin FY 2008 QTY O/H	Begin FY 2009 QTY O/H	End FY 2009 QTY O/H	End FY 2009 QTY REQ
TRUCK, AMBULANCE, M997 (HMMWV)	T38844	113,998	1,215	1,218	1,367	1,667	1,649
TRUCK, UTILITY TOW, M966 (HMMWV)	T05096	49,521	910	910	910	910	638
TRUCK, UTILITY, 1-1/4 TON ARM, M1025 (HMMWV)	T92242	74,969	2,907	2,907	2,907	2,907	1,484
TRUCK, UTILITY, 1-1/4 TON TOW, M1036 (HMMWV)	T92310	39,518	1,290	1,290	1,291	1,291	660
TRUCK, UP-ARMORED, M1114 (HMMWV)	T92446	146,844	1,515	1,519	1,547	1,547	5,072
TRUCK, UTILITY, 1-1/4 TON, M1097 (HMMWV)	T07679	61,665	3,812	4,614	6,943	6,949	3,411
TRUCK, UTILITY, 1-1/4 TON, M998 (HMMWV)	T61494	36,076	18,050	19,116	21,180	21,237	29,751
TRUCK, UTILITY, 1-1/4 TON, M1038 (HMMWV)	T61562	36,672	2,173	2,220	2,282	2,282	467
TRUCK, UTILITY, 1-1/4 TON, M1113 (HMMWV)	T61630	61,042	513	649	851	1,153	3,058
TRUCK, CARGO, TACTICAL, W/LT CRANE (HEMTT)	T39518	260,574	192	192	215	215	276
TRUCK, CARGO, W/MED CRANE, M985 (HEMTT)	T39586	272,033	928	928	928	928	173
TRUCK, CARGO, TACTICAL, M985 (HEMTT)	T39654	282,002	176	176	176	176	525
TRUCK, CARGO, 10 TON, W/LT CRANE (HEMTT)	T59278	251,388	584	584	584	584	167
TRUCK, TANKER, FUEL, 2500G (HEMTT)	T58161	278,409	514	515	515	515	367
TRUCK, TANKER, FUEL, 2500G (HEMTT)	T87243	268,440	822	890	1,031	1,033	1,527
TRUCK, WRECKER, 8X8, M948E1 (HEMTT)	T63093	379,000	644	665	724	731	698
TRUCK, CARGO, LMTV, M1078	T60081	176,428	2,298	3,166	4,031	4,043	4,835
TRUCK, CARGO, LMTV, M1079	T93484	162,060	78	99	149	149	398
TRUCK, CARGO, MTV, 5-TON, M1083	T41135	134,047	224	420	592	606	372
TRUCK, CARGO, MTV, 5-TON, M1084	T41203	180,357	121	161	251	354	1,036
TRUCK, TRACTOR, MTV, 5-TON, M1088	T61239	142,132	1,167	1,199	1,323	1,487	2,298
TRUCK, CARGO, MTV, 5-TON, M1085	T61704	118,791	32	32	41	41	70
TRUCK, CARGO, MTV, 5-TON, M1083	T61908	128,076	1,006	1,159	2,159	2,238	3,819
TRUCK, WRECKER, MTV, 5-TON, M1089	T94709	331,680	188	315	395	399	452
TRUCK, CARGO, 5-TON, DROP SIDE	X40931	85,946	1,463	1,515	1,515	1,515	555
TRUCK, TACTICAL FIRE FIGHTING	H56391	151,000	81	95	95	95	70
SEMITRAILER, 22-1/2 TON, M871	S70027	26,500	3,973	4,009	4,206	4,226	3,778
SEMITRAILER, FULL BED, TRANSPORTR, 34 TON	S70159	75,000	2,478	2,587	2,587	2,587	4,323
SEMITRAILER, LOW BED, 40 TON, 6-WHEEL	S70594	51,900	1,030	1,030	1,030	1,048	1,433
SEMITRAILER, HVY EQUIP TRANSPORTER (HET), 60 TON, M747	S70661	70,564	223	223	223	223	116
SEMITRAILER, HVY EQUIP TRANSPORTER SYSTEM (HETS), 70 TON, M1000	S70859	229,219	859	860	860	860	867
SEMITRAILER, 5000 GAL POL	S73372	97,413	416	416	416	474	363
TRAILER, HEMAT, M989A1 (MLRS)	T45465	34,714	914	914	914	914	1,540
TRAILER, PALLETIZED LOAD SYSTEM (PLS), M1076	T93761	46,731	856	952	1,213	1,426	2,400
TRANSPORTER, PALLETIZED LOAD SYSTEM (PLS), M1075	T40999	276,410	424	424	478	478	1,055
TRANSPORTER, PALLETIZED LOAD SYSTEM (PLS), M1074	T41067	288,015	560	560	560	560	232
TRUCK, TRACTOR, HVY EQUIP TRANSPORTER SYSTEM (HETS), M1070	T59048	256,704	733	733	733	733	925
TRUCK, TRACTOR, LINE HAUL, M915	T61103	162,968	2,123	2,169	2,172	2,172	2,397

Consolidated Major Item Inventory and Requirements

Nomenclature	Equip No.	FY 2007 Unit Cost	Begin FY 2007 QTY O/H	Begin FY 2008 QTY O/H	Begin FY 2009 QTY O/H	End FY 2009 QTY O/H	End FY 2009 QTY REQ
TRUCK, TRACTOR, LIGHT EQUIP TRANSPORTER, M916	T91656	164,760	856	866	926	1,012	1,687
TRUCK, FORKLIFT, ALL TERRAIN LIFTER, ARMY SYSTEM (ATLAS)	T73347	100,199	169	191	250	252	449
TRUCK, 2 1/2 TON, M35A2	X40146	56,500	2,991	2,991	2,991	2,991	577
TRUCK, DUMP, 5-TON, 6X6, M929	X43708	89,115	1,492	1,492	1,492	1,492	1,210
TRUCK, DUMP, 5-TON, 6X6	X43845	93,130	397	397	397	397	0
TRUCK, DUMP, 20-TON, 12 CY, M917	X44403	191,616	522	559	561	561	576
TRACKED & WHEELED COMBAT SYSTEMS							
CARRIER, AMMO TRACKED, M992A2	C10908	1,140,667	352	352	352	352	271
ARMORED PERSONNEL CARRIER, FISTV, M113	C12155	553,367	409	409	409	409	28
ARMORED PERSONNEL CARRIER, M1059A2	C12815	298,778	91	91	91	91	0
ARMORED PERSONNEL CARRIER, M113A3	C18234	405,815	2,010	2,333	2,525	2,525	640
CARRIER, CARGO, FULL-TRACKED, 6 TON, M548	D11049	323,416	452	452	452	452	81
CARRIER, COMMAND POST, M577A1	D11538	345,787	1,679	1,717	1,741	1,741	384
ARMORED PERSONNEL CARRIER, M113A1/2	D12087	244,844	1,754	1,754	1,754	1,754	808
INFANTRY FIGHTING VEHICLE, M2A0 (BRADLEY)	J81750	1,061,457	191	191	191	191	20
INFANTRY FIGHTING VEHICLE, M2A2 (BRADLEY)	F40375	1,349,348	854	854	861	861	819
CAVALRY FIGHTING VEHICLE, M3A0 (BRADLEY)	C76335	1,056,845	58	58	58	58	14
CAVALRY FIGHTING VEHICLE, M3A2 (BRADLEY)	F60530	1,144,000	371	510	540	540	305
HOWITZER, LIGHT TOWED, 105MM, M102	K57392	126,016	238	238	238	238	586
HOWITZER, LIGHT TOWED, 105MM, M119	H57505	1,100,000	176	261	261	261	255
HOWITZER, MEDIUM, SP, 155MM, M109A5	K57667	758,038	266	266	266	266	73
HOWITZER, MEDIUM, SP, 155MM, M109A6 (PALADIN)	H57642	1,435,000	375	375	375	375	269
LAUNCHER, M60 TANK CHASSIS	L43664	527,126	295	295	295	295	123
RECOVERY VEHICLE, MEDIUM, FULL-TRACKED, M88A1	R50681	1,210,755	762	762	762	762	433
TANK, COMBAT, 120MM, M1A1 (ABRAMS)	T13168	2,393,439	600	600	600	600	600
TRACTOR, FULL-TRACKED, ARMORED, M9 (ACE)	W76473	887,050	42	42	42	42	29
WEAPONS							
MACHINE GUN, 7.62MM 240B	M92841	6,000	7,580	8,297	9,004	9,004	5,612
RIFLE, 5.56 MM M16A2	R95035	449	242,897	242,936	242,936	242,936	189,831

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Average Age of Equipment

Table 2

NOTE: This table provides the average age of selected major items of equipment. The average age provides a projected average age of the fleet at the start of FY 2006.

Nomenclature	Equip No.	Average Age	Remarks
FIXED WING AIRCRAFT			
AIRPLANE, CARGO, C-23	A29880	13	
AIRPLANE, CARGO, C-26	A46758	14	
AIRPLANE, CARGO, UC-35	Z95382	7	
AIRPLANE, CARGO, C-12	2 LINS	20	
ROTARY AIRCRAFT			
HELICOPTER, ATTACK AH-64A (APACHE)	H28647	17	
HELICOPTER, CARGO CH-47D (CHINOOK)	H30517	15	
HELICOPTER, OBSERVATION, OH-58D (KIOWA)	A21633	15	
HELICOPTER, UTILITY UH-60A (BLACKHAWK)	K32293	22	
HELICOPTER, UTILITY UH-60L (BLACKHAWK)	H32361	10	
MISSILES			
FIRE UNIT VEHICLE MOUNTED, AVENGER	F57713	13	
MULTIPLE LAUNCH ROCKET SYSTEM (MLRS)	L44894	18	
COMMUNICATION EQUIPMENT			
SINGARS SYSTEMS, ICOM (A) MODEL	VARIOUS	18	
SINGARS SYSTEMS, ASIP (F) MODEL	VARIOUS	8	
VRC-12 RADIO SYSTEMS	VARIOUS	30	
CHEMICAL DEFENSIVE EQUIPMENT			
DECONTAMINATION APPARATUS, SKID MOUNTED	F81880	32	
CONSTRUCTION EQUIPMENT			
BRIDGE ARMORED VEHICLE, SCISSOR TYPE	C20414	35	
CRANE, WHEEL MOUNTED, 20T	F39378	35	
CRANE-SHOVEL, CRAWLER MOUNTED	F40474	15	
GRADER, ROAD, MTR, FRONT WHEEL STEER	J74852	29	
SMALL EMPLACEMENT EXCAVATOR W/FRONT LOADER	T34437	17	
TRUCK, DUMP, 20T, 12 CY M917	X44403	28	
TRUCK, DUMP, 5T 6X6 WW WE	X43845	37	
ROLLER PNEUMATIC, VARIABLE PRESSURE	S11793	27	
TRACTOR, FULLTRACKED, ARMORED M9 (ACE)	W76473	12	
TRACTOR, FULLTRACKED, LOW SPEED	W76816	34	

ARNG

Average Age of Equipment

Table 2

Nomenclature	Equip No.	Average Age	Remarks
TRACTOR, FULLTRACKED, LOW SPEED, DED, MED	W83529	26	
ELECTRICAL GENERATION			
GENERATOR SET, DIESEL ENGINE, 30KW	J36383	22	
GENERATOR SET, DSL ENG, TM, 10KW, 60HZ	G40744	16	
GENERATOR, PU-405	J35492	22	
TACTICAL VEHICLES			
TRUCK, CARGO, 5T, DROP SIDE WW	X40931	22	
TRUCK, TRACTOR, HEAVY EQUIP TRANS SYS (HET)	T59048	12	
TRUCK, UTILITY, HEAVY VARIANT (HMMWV)	T07679	12	
TRUCK, UTILITY, 1-1/4 TON, M998 (HMMWV)	T61494	15	
TRUCK, UTILITY, 1-1/4 TON, M1036, TOW (HMMWV)	T92310	16	
TRUCK, CARGO, TACTICAL, W/W-LT CR (HEMTT)	T39518	18	
TRUCK, M985, CARGO, W/MED CR (HEMTT)	T39586	15	
TRUCK, TANKER, FUEL, 2500G WW (HEMTT)	T58161	16	
TRUCK, CARGO, 10 TON, W/LT CRANE (HEMTT)	T59278	22	
TRUCK, WRECKER, M948E1, 8X8 (HEMMT)	T63093	15	
TRUCK, TANKER, FUEL, 2500G (HEMMT)	T87243	16	
TRUCK, TRACTOR, TACTICAL, 8X8, HVY EXPANDED	T88677	20	
ROUGH TERRAIN CARGO HANDLER, 50K LB (RTCH)	T48941	22	
TRUCK, FORK LIFT, 6K LB, RT, VARIABLE REACH	T48944	13	
TRUCK, FORK LIFT, DD, 4K LB, RT	T49255	23	
TRACTOR, WHEELED, WAREHOUSE, 4K LB	W89557	26	
TRANSPORTER, PALLETIZED LOAD SYSTEM (PLS)	T40999	11	
SEMITRAILER, 221/2 TON M871	S70027	22	
SEMITRAILER, FB, TRANSPORTER, 34T	S70159	22	
SEMITRAILER, LOW BED, 40 TON, 6-WHEEL	S70594	27	
SEMITRAILER, HVY EQUIP TRANSPORTER, 60T (HET)	S70661	30	
SEMITRAILER, TANK, PETROLEUM, 7500 GAL, BULK HAUL	S73119	14	
SEMITRAILER, VAN, SUP M129A2C	S75175	37	
TRUCK, TRACTOR, LET M916	T91656	22	
TRACKED & WHEELED COMBAT SYSTEMS			
ARMORED PERSONNEL CARRIER, M113A3	C18234	17	
ARMORED PERSONNEL CARRIER, FISTV	C12155	38	
ARMORED PERSONNEL CARRIER, FM113A1/2	D12087	34	
CARRIER, CARGO, FT, 6 TON M548	D11049	37	
CARRIER, AMMO, TRACKED M992A2	C10908	19	
CARRIER, COMMAND POST M577A1	D11538	18	
CARRIER, M106A1, 107MM MORT, 4.2IN	D10741	39	
CARRIER, SMOKE GENERATOR, FT, ARMD	C12815	33	
CAVALRY FIGHTING VEHICLE M3A0(BRADLEY)	C76335	21	

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Average Age of Equipment

Table 2

Nomenclature	Equip No.	Average Age	Remarks
CAVALRY FIGHTING VEHICLE M3A2 (BRADLEY)	F60530	17	
HOWITZER, M102, 105MM, LT, TWD	K57392	17	
HOWITZER, MEDIUM, SP, 155MM M109A5	K57667	34	
INFANTRY FIGHTING VEHICLE M2A0 (BRADLEY)	J81750	21	
INFANTRY FIGHTING VEHICLE M2A2 (BRADLEY)	F40375	14	
LAUNCH, M60 TANK CHASSIS	L43664	29	
RECOVERY VEHICLE, FT, MDM M88A1	R50681	30	
TANK, COMBAT, 105MM M1 (ABRAMS)	T13374	21	
TANK, COMBAT, 120MM M1A1 (ABRAMS)	T13168	18	
TRACTOR, FULLTRACKED, ARMORED M9 (ACE)	W76473	12	
TRACTOR, FULLTRACKED, LOW SPEED	W76816	34	
TRACTOR, FULLTRACKED, LOW SPEED, DED, MED	W83529	26	

Service Procurement Program - Reserve (P-1R)

NOTE: This table identifies the dollar value of equipment programmed to be procured with Service procurement funds as identified in the P-1R exhibit of the FY 2007 President's Budget Submission. All values are costs in dollars, and ammunition procurements have been excluded. Deliveries of procured equipment normally take one to two years before they arrive in the inventory; e.g., items procured in FY 2007 would be expected to arrive in RC inventories in FY 2008 or FY 2009.

Nomenclature	FY 2007	FY 2008	FY 2009	Remarks
MODIFICATION OF AIRCRAFT				
CH-47 CARGO HELICOPTER MODS	108,032,000	55,821,000		
UTILITY/CARGO AIRPLANE MODS	7,123,000	6,729,000		
AIRBORNE AVIONICS	8,726,000	11,253,000	9,609,000	
GATM ROLLUP	3,586,000			
SUPPORT EQUIPMENT AND FACILITIES				
AIRBORNE COMMAND & CONTROL			42,400,000	
AIR TRAFFIC CONTROL	12,659,000	26,872,000		
MISSILES				
JAVELIN (AAWS-M) SYSTEM SUMMARY	41,714,000	29,128,000	90,079,000	
HIGH MOBILITY ARTILLERY ROCKET SYSTEM (HIMARS)	90,374,000	159,086,000	160,842,000	
ITAS/TOW MODS	83,129,000	93,154,000	75,258,000	
HIMARS MODIFICATIONS	3,667,000	5,184,000	8,696,000	
SPARES AND REPAIR PARTS	5,902,000	699,000	7,013,000	
TRACKED COMBAT VEHICLES				
BRADLEY BASE SUSTAINMENT	128,344,000	92,924,000	275,058,000	
STRYKER VEHICLE	218,712,000	74,000,000		
CARRIER, MOD	6,220,000	20,000,000	20,000,000	
FIST VEHICLE (MOD)			33,200,000	
M1 ABRAMS TANK (MOD)		196,000,000	101,500,000	
WEAPONS AND OTHER COMBAT VEHICLES				
HOWITZER, LIGHT, TOWED, 105MM, M119	20,369,000	50,716,000	65,007,000	
M240 MEDIUM MACHINE GUN (7.62MM)	10,000,000	15,000,000	15,000,000	
M249 SAW MACHINE GUN (5.56MM)	15,000,000	15,000,000	15,000,000	
M107, CAL. 50, SNIPER RIFLE		319,000	225,000	
HOWITZER LT WT 155MM (T)	25,200,000	101,923,000	6,930,000	
MK-19 GRENADE MACHINE GUN MODS	46,000	92,000	114,000	
M249 SAW MACHINE GUN MODS	77,000	137,000	61,000	
TACTICAL VEHICLES				
TACTICAL TRAILERS/DOLLY SETS	954,000	5,159,000	27,280,000	
SEMITRAILERS, FLATBED:	697,000	3,196,000	3,447,000	
SEMITRAILERS, TANKERS	5,563,000	2,152,000	23,641,000	
HI MOB MULTI-PURP WHLD VEH (HMMWV)	79,612,000	345,338,000	422,330,000	

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Table 3

Service Procurement Program - Reserve (P-1R)

Nomenclature	FY 2007	FY 2008	FY 2009	Remarks
FAMILY OF MEDIUM TACTICAL VEH (FMTV)	144,442,000	32,339,000	115,858,000	
FIRETRUCKS & ASSOCIATED FIREFIGHTING EQUIP	24,527,000	15,724,000	9,182,000	
FAMILY OF HEAVY TACTICAL VEHICLES (FHTV)	123,946,000	221,910,000	237,386,000	
TRUCK, TRACTOR, LINE HAUL, M915/M916	10,138,000	25,402,000	24,152,000	
HVY EXPANDED MOBILE TACTICAL TRUCK EXT SERV	25,040,000	25,934,000	15,191,000	
COMMUNICATIONS AND ELECTRONICS EQUIPMENT				
NAVSTAR GLOBAL POSITIONING SYSTEM (SPACE)	10,021,000	49,824,000	18,675,000	
ARMY GLOBAL CMD & CONTROL SYS (AGCCS)	3,064,000	3,064,000	2,132,000	
JOINT TACTICAL RADIO SYSTEM		3,000,000	89,100,000	
SINGARS FAMILY	86,900,000	132,965,000	103,287,000	
BRIDGE TO FUTURE NETWORKS	65,760,000	194,557,000		
COMMS-ELEC EQUIP FIELDING	1,042,000	1,342,000	3,280,000	
RADIO, IMPROVED HF FAMILY	90,200,000	28,396,000	493,000	
MEDICAL COMM FOR CBT CASUALTY CARE (MC4)	524,000			
TSEC - ARMY KEY MGT SYS (AKMS)	9,392,000	10,464,000	5,206,000	
INFORMATION SYSTEM SECURITY PROGRAM-ISSP	8,435,000	7,889,000	7,672,000	
ALL SOURCE ANALYSIS SYS (ASAS) (MIP)		16,508,000	16,981,000	
PROPHET GROUND (MIP)	16,046,000	96,183,000	75,558,000	
TACTICAL UNMANNED AERIAL SYS (TUAS)MIP		13,101,000	119,677,000	
DIGITAL TOPOGRAPHIC SPT SYS (DTSS) (MIP)	10,944,000	7,100,000	6,500,000	
DCGS-A (MIP)	6,015,000	4,201,000	1,252,000	
MOD OF IN-SVC EQUIP (INTEL SPT) (MIP)		4,158,000	2,773,000	
CI HUMINT INFO MANAGEMENT SYSTEM (CHIMS) MIP		12,126,000	6,816,000	
ELECT EQUIP - TACT INT REL ACT (TIARA) - ITEMS LESS THAN \$5M (MIP)		22,334,000	36,308,000	
NIGHT VISION DEVICES	89,649,000	67,107,000	128,915,000	
LONG RANGE ADVANCED SCOUT SURVEILLANCE SYSTEM	81,751,000	67,943,000	81,453,000	
NIGHT VISION, THERMAL WPN SIGHT	50,000,000	50,000,000	70,000,000	
RADIATION MONITORING SYSTEMS	3,693,000	3,481,000	3,424,000	
FORCE XXI BATTLE CMD BRIGADE & BELOW (FBCB2)	11,014,000	79,293,000	56,130,000	
LIGHTWEIGHT LASER DESIGNATOR/RANGEFINDER	23,340,000	37,782,000	33,026,000	
MORTAR FIRE CONTROL SYSTEM	12,392,000			
TACTICAL OPERATIONS CENTERS	1,402,000	24,000,000	88,200,000	
ADV FA TAC DATA SYS / EFF CTRL SYS		3,848,000	7,977,000	
LIGHT WEIGHT TECHNICAL FIRE DIRECTION SYS	959,000	1,000,000	500,000	
BATTLE COMMAND SUSTAINMENT SUPPORT SYSTEM	1,434,000	9,789,000	493,000	
FAAD C2	7,558,000	18,371,000	11,024,000	
AIR & MSL DEFENSE PLANNING & CONTROL SYS		1,847,000	13,502,000	
FORWARD ENTRY DEVICE / LIGHTWEIGHT FED	1,803,000	2,093,000	1,779,000	
KNIGHT FAMILY	10,000,000	24,500,000	33,000,000	

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Table 3

Service Procurement Program - Reserve (P-1R)

Nomenclature	FY 2007	FY 2008	FY 2009	Remarks
JOINT NETWORK MANAGEMENT SYSTEM (JNMS)	877,000	154,000	3,154,000	
MANEUVER CONTROL SYSTEM (MCS)	4,380,000	16,882,000	31,067,000	
MOUNTED BATTLE COMMAND ON THE MOVE (MBCOTM)			11,000,000	
ELECT EQUIP - SUPPORT - ITEMS UNDER \$5M (SSE)	7,940,000	8,170,000	6,040,000	
OTHER SUPPORT EQUIPMENT				
CBRN SOLDIER PROTECTION	24,868,000	25,979,000	25,971,000	
TACTICAL BRIDGING		23,649,000	43,760,000	
TACTICAL BRIDGE, FLOAT-RIBBON	56,002,000	24,000,000	76,817,000	
HANDHELD STANDOFF MINEFIELD DETECTION SYS-HST	14,936,000	9,892,000	2,023,000	
GRND STANDOFF MINE DETECTION SYSTEM	37,906,000	46,547,000	82,895,000	
HEATERS AND ECUS	79,000		114,000	
SOLDIER ENHANCEMENT	3,758,000	7,387,000	3,410,000	
FIELD FEEDING EQUIPMENT	20,321,000	7,824,000	9,423,000	
CARGO AERIAL DELIVERY PROGRAM			1,291,000	
ITEMS LESS THAN \$5M (ENG SPT)	7,000	161,000	136,000	
QUALITY SURVEILLANCE EQUIPMENT	637,000	637,000		
DISTRIBUTION SYSTEMS, PETROLEUM & WATER	3,032,000	8,342,000	12,100,000	
WATER PURIFICATION SYSTEMS		7,262,000	6,869,000	
COMBAT SUPPORT MEDICAL	715,000	5,692,000	2,021,000	
SHOP EQ CONTACT MAINTENANCE TRK MTD (MYP)	29,561,000	29,977,000	31,854,000	
WELDING SHOP, TRAILER MTD	1,675,000	1,287,000	2,982,000	
ITEMS LESS THAN \$5M (MAINT EQ)		8,911,000	9,577,000	
SCRAPERS, EARTHMOVING		9,500,000	9,700,000	
MISSION MODULES - ENGINEERING	7,700,000	3,115,000	44,509,000	
LOADERS	6,106,000	6,750,000	7,100,000	
PLANT, ASPHALT MIXING			4,890,000	
HIGH MOBILITY ENGINEER EXCAVATOR (HMEE)	9,159,000	3,500,000	3,700,000	
CONST EQUIP ESP	4,136,000		3,000,000	
ITEMS LESS THAN \$5M (CONST EQUIP)	4,333,000	12,390,000	11,100,000	
GENERATORS AND ASSOCIATED EQUIP	45,913,000	85,094,000	113,526,000	
ALL TERRAIN LIFTING ARMY SYSTEM	2,810,000	10,840,000	13,063,000	
INTEGRATED FAMILY OF TEST EQUIPMENT (IFTE)	21,591,000	22,686,000	11,043,000	
TOTAL	\$2,115,579,000	\$3,016,085,000	\$3,413,727,000	

National Guard and Reserve Equipment Appropriation (NGREA) Procurements

NOTE: This table identifies the dollar value of equipment originally programmed to be procured with the National Guard and Reserve Equipment Appropriation (NGREA). These funds are available for a three-year period from the year of appropriation. Deliveries of procured equipment normally take one to two years from date of procurement before they arrive in the inventory; e.g., items procured in FY 2007 would be expected to arrive in RC inventories in FY 2008 or FY 2009. All values are costs in dollars.

Nomenclature	FY 2004	FY 2005	FY 2006	Remarks
TRAINING				
ADVANCED BRADLEY FULL-CREW INTERACTIVE SKILLS TRAINER (AB FIST)	9,350,000	4,400,000		
DEPLOYABLE FORCE-ON-FORCE INSTRUMENTED RANGE SYSTEM (DFIRST)	2,502,000	3,850,000		
ENGAGEMENT SKILLS TRAINER 2000 (EST 2000)	2,500,000	3,200,000		
LASER MARKSMANSHIP TRAINER (LMTS)	1,620,000		1,350,000	
LASER MARKSMANSHIP TRAINER (LMTS) - SNIPER VERSION	300,000			
HIGH MOBILITY MULTIPURPOSE WHEELED VEHICLE (HMMWV) CONVOY TRAINER		2,320,000		
DEPLOYABLE FORCE-ON-FORCE INSTRUMENTED RANGE SYSTEM (DFIRST) - FLEXTRAIN			4,950,000	
MOBILE CONDUCT-OF-FIRE TRAINER (MCOFT) XXI		3,437,500		
MOBILE CONDUCT-OF-FIRE TRAINER (MCOFT) XXI - BCT			1,760,000	
MOBILE CONDUCT-OF-FIRE TRAINER (MCOFT) XXI - M2			810,000	
FATS IV - M4 ENGAGEMENT SKILLS TRAINER			2,061,800	
FATS IV DIGITIZATION			2,000,000	
FATS IV - M19 ENGAGEMENT SKILLS TRAINER			160,800	
FATS IV - M240 ENGAGEMENT SKILLS TRAINER			88,400	
FATS IV - M2 ENGAGEMENT SKILLS TRAINER			74,600	
FATS IV - M249 ENGAGEMENT SKILLS TRAINER			44,400	
SOLDIER EQUIPMENT				
AN/PVS-14 NIGHT VISION GOGGLES	14,932,500	19,200,000	16,282,500	
AN/PEQ-2 RIFLE ILLUMINATOR	4,302,700	2,671,950		
AN/PAS-13 THERMAL WEAPON SIGHT		6,300,000		
M4 CARBINE	5,000,000	14,177,000	1,814,400	
M240B MACHINE GUN	3,600,000	5,371,000		
INDIVIDUAL CHEMICAL AGENT MONITOR			360,000	
INTEROPERABILITY				
AN/USC-60A SATELLITE TERMINAL (FTSAT)	9,800,000			
MOVEMENT TRACKING SYSTEM (MTS)	4,500,000	4,500,000	113,553,600	

National Guard and Reserve Equipment Appropriation (NGREA) Procurements

Nomenclature	FY 2004	FY 2005	FY 2006	Remarks
ADVANCED FIELD ARTILLERY TACTICAL DATA SYSTEM (AFATDS)	900,000			
SINGARS AIRBORNE RADIOS	2,940,900			
SINGARS R/T 1523E RECEIVER/TRANSMITTER		10,000,000		
SINGARS RADIOS			15,408,900	
AN/PRC-112 AIRCREW INDIVIDUAL RADIO	1,650,000	1,626,900		
JOINT NETWORK NODE (JNN) - JOINT CONUS COMMUNICATIONS SUPPORT ENTERPRISE (JCCSE)			55,000,000	
JOINT NETWORK NODE (JNN) - UEX			48,300,000	
JOINT NETWORK NODE (JNN) - FIRES BRIGADE			44,000,000	
JOINT NETWORK NODE (JNN) - MANUEVER ENHANCEMENT BRIGADE			37,600,000	
JOINT NETWORK NODE (JNN) - SUSTAINMENT BRIGADE			8,800,000	
TACTICAL QUIET GENERATOR (TQG)			4,368,000	
AVIATION MOBILITY & SPECIAL EQUIPMENT				
SHADOW 200 TACTICAL UNMANNED AERIAL VEHICLE	12,000,000			
HOIST HIGH PERFORMANCE			5,900,000	
UH-60 BLACKHAWK REMOVE AND REPLACE TASK TRAINER			2,583,000	
CH-47 MAINTENANCE TRAINER			1,700,000	
MOBILITY				
HIGH MOBILITY MULTIPURPOSE WHEELED VEHICLE (HMMWV)	15,050,000			
MTV M1083 5-TON CARGO TRUCK	5,600,000		80,392,650	
HEAVY EXPANDED MOBILITY TACTICAL TRUCK (HEMTT) TANKER, M978	2,709,900	2,408,840	27,950,000	
HIGH MOBILITY MULTIPURPOSE WHEELED VEHICLE (HMMWV) WEAPONS, M1151		11,952,000		
HIGH MOBILITY MULTIPURPOSE WHEELED VEHICLE (HMMWV) SHELTER, M1097/M1192		8,766,810	3,940,000	
M917A2 DUMP TRUCK, 20 TON		6,379,000		
M1078 LMTV 2.5-TON CARGO			157,725,000	
M1089 MTV WRECKER 5-TON			45,797,458	
M1088 MTV TRACTOR 5-TON			31,093,696	
M915A3 TRACTOR			7,680,000	
M872 TRAILER FOR M915 TRACTOR			6,045,000	
TOTAL	\$99,258,000	\$110,561,000	\$729,594,204	

Projected Equipment Transfer/Withdrawal Quantities

NOTE: This table portrays the planned equipment transfers (Active to Reserve), withdrawals (-), and decommissioning (-). Transferred equipment is commonly called "cascaded equipment," or equipment that is provided to the RC once the Active receives more modern equipment. Although this table highlights a three-year period, many Services will not know exact quantities of transfers or withdrawals until year of execution, due to the uncertainty of the procurement/delivery cycle of new equipment.

Nomenclature	Equip No.	FY 2007 Qty	FY 2008 Qty	FY 2009 Qty	Remarks
ROTARY WING AIRCRAFT					
HELICOPTER, UTILITY UH-60A (BLACK HAWK)	K32293	16			
COMMUNICATIONS EQUIPMENT					
RADIO SET AN/PRC-112	R82903	70			
CHEMICAL DEFENSIVE EQUIPMENT					
ALARM CHEM DET M22	A33020	248			
ELECTRICAL GENERATION					
GENERATOR SET, DIESEL ENGINE, 30KW	J36383		1		
OTHER PROCUREMENT					
MONOCULAR, NIGHT VISION, PVS-14	M79678	897			
NIGHT VISION GOGGLES AN/PVS-5	N04456	2			
NIGHT VISION DEVICE, AN/PVS-4 WMG (WEAPON)	N04732	6	2		
NIGHT VISION GOGGLES, AN/PVS-7B	N05482	5,983	34		
NIGHT VISION SIGHT, AN/UAS-11(V)1	N05050	2	1		
NAVIGATION SYSTEM, PSN-11	N95862	163			
TACTICAL VEHICLES					
TRUCK, UTILITY, 1-1/4 TON TOW, M1036 (HMMWV)	T92310		1		
TRUCK, UP-ARMORED, M1114 (HMMWV)	T92446	4	28		
TRUCK, UTILITY, 1-1/4 TON, M1097 (HMMWV)	T07679		26		
TRUCK, UTILITY, 1-1/4 TON, M998 (HMMWV)	T61494	11	15		
TRUCK, UTILITY, 1-1/4 TON, M1038 (HMMWV)	T61562		8		
TRUCK, UTILITY, 1-1/4 TON, M1113 (HMMWV)	T61630		190	23	
TRUCK, CARGO, TACTICAL, W/LT CRANE (HEMTT)	T39518		23		
TRUCK, TANKER, FUEL, 2500G (HEMTT)	T58161	1			
TRUCK, TANKER, FUEL, 2500G (HEMTT)	T87243		7		
TRUCK, WRECKER, 8X8, M948E1 (HEMTT)	T63093		3		
TRUCK, CARGO, LMTV, M1078	T60081	118			
TRUCK, CARGO, LMTV, M1079	T93484	8	3		
TRUCK, CARGO, MTV, 5-TON, M1084	T41203	13		6	
TRUCK, CARGO, MTV, 5-TON, M1083	T41135	5	5		
TRUCK, TRACTOR, MTV, 5-TON, M1088	T61239	16			
TRUCK, CARGO, MTV, 5-TON, M1083	T61908		16		
TRUCK, CARGO, 5-TON, DROP SIDE	X40931	52			

Projected Equipment Transfer/Withdrawal Quantities

Nomenclature	Equip No.	FY 2007 Qty	FY 2008 Qty	FY 2009 Qty	Remarks
SEMITRAILER, FULL BED, TRANSPORTER, 34 TON	S70159	97			
SEMITRAILER, LOW BED, 40 TON, 6-WHEEL	S70594			18	
SEMITRAILER, HVY EQUIP TRANSPORTER SYSTEM (HETS), 70 TON, M1000	S70859	1			
TRAILER, PALLETIZED LOAD SYSTEM (PLS), M1076	T93761			16	
TRUCK, TRACTOR, LINE HAUL, M915	T61103	46			
TRUCK, TRACTOR, LIGHT EQUIP TRANSPORTER, M916	T91656	2		76	
TRUCK, FORKLIFT, ALL TERRAIN LIFTER, ARMY SYSTEM (ATLAS)	T73347	7	3	2	
TRUCK, DUMP, 20-TON, 12 CY, M917	X44403	2	2		
WEAPONS					
RIFLE, 5.56 MM M16A2	R95035	39			

FY 2003 Planned vs Actual Procurements and Transfers

NOTE: This table compares what the Service planned to procure and transfer to the RC in FY 2003 with actual procurements and transfers. FY 2003 is selected as these are the most recent funds to expire. Since the procurement cycle is normally one to two years from funding to delivery, this table identifies only what has been delivered through the end of FY 2005. Procurement and NGREA columns reflect cost values in dollars.

Nomenclature	Equip No.	FY 2003 Transfers (# of items)		FY 2003 Procurements (\$s)		FY 2003 NGREA (\$s)	
		Plan	Actual	Plan	Actual	Plan	Actual
ALARM, CHEMICAL AGENT, M8A1	A32355	16	0				
REINFORCEMENT SET,MEDIUM GIRDER BRIDGE	C27309	1	0				
GRADER, ROAD, MOTORIZED	J74886	10	0				
MASK,CHEMICAL BIOLOGICAL M40	M12418	133	133				
ASPHALT PLANT	M57048	1	0				
VIBRATOR ROLLER	S12916	1	11				
TRACTOR,FT,LS,DED,MED	W83529	4	4				
MELIOS	M74849	5	0				
NIGHT VISION GOGGLES AN/PVS-7B	N05482	6,718	0				
RADIO SET AN/VRC-92A (SINGARS)	R45407	328	0				
RADIO SET AN/VRC-88A (SINGARS)	R67194	7	0				
RADIO SET AN/VRC-90A (SINGARS)	R67908	4	0				
RADIO SET AN/VRC-91A (SINGARS)	R68010	42	0				
RADIO SET AN/VRC-119A (SINGARS)	R83005	2	0				
SEMITRAILER,22-1/2 TON M871	S70027	290	290				
SEMITRAILER, LOW BED, 40 TON	S70594	69	69				
SEMITRAILER,HVY EQUIP TRANS SYS,70T (HETS)	S70859	1	0				
SEMITRAILER 5000 GAL POL	S73372	10	10				
TRUCK UTILITY CARGO/TROOP 1 1/4 TON M1097	T07679	295	0				
TRUCK, M985, CARGO, (HEMTT)	T39586	10	0				
TRUCK,CARGO,TACTICAL, M985 (HEMTT)	T39654	14	0				
TRAILER HEMAT M989A1 (MLRS)	T45465	21	0				
TRUCK, TANKER, FUEL, 2500G (HEMTT)	T58161	4	0				
TRUCK,TRACTOR,HEAVY EQUIP TRANS SYS (HETS)	T59048	1	0				
TRUCK,CARGO,4X4,LMTV M1078	T60081	111	111				
TRUCK UTILITY CARGO/TROOP 1 1/4 TON M1038	T61562	11	0				
TRUCK, WRECKER, M948E1 (HEMTT)	T63093	12	0				
TRUCK,TANKER,FUEL,2500G (HEMTT)	T87243	4	0				
TRUCK,TRACTOR,LET M916	T91656	23	0				

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Table 6

FY 2003 Planned vs Actual Procurements and Transfers

Nomenclature	Equip No.	FY 2003 Transfers (# of items)		FY 2003 Procurements (\$s)		FY 2003 NGREA (\$s)	
		Plan	Actual	Plan	Actual	Plan	Actual
TRAILER,PALLETIZED LOAD SYSTEM (PLS)	T93761	7	0				
RIFLE, 5.56 MM M16A2	R95035	60	60				
RECOVERY VEHICLE,FT,MDM M88A1	R50681	12	0				
FIRE UNIT VEHICLE MOUNTED,AVENGER	F57713	16	16				
MULTIPLE LAUNCH ROCKET SYSTEM (MLRS)	L44894	65	0				
HELICOPTER,ATTACK AH-64 (APACHE)	H28647	6	6				
HELICOPTER,UTILITY UH-60A (BLACK HAWK)	K32293	23	23				
UH-60A BLACKHAWK				176,400,000	157,270,000		
CH-47 MODS				33,800,000	0		
UTILITY/CARGO AIRPLANE MODS				12,200,000	9,200,000		
JAVELIN (AAWS-M) SYSTEM SUMMARY				89,700,000	89,688,000		
MLRS LAUNCHER SYSTEMS				76,900,000	0		
MLRS MODS				2,000,000	0		
HIGH MOBILITY ARTILLERY ROCKET SYSTEM (HIMARS)					69,194,000		
MACHINE GUN, 7.62MM M240 SERIES				12,800,000	0		
GRENADE LAUNCHER, 40MM, MK19-3				2,200,000	0		
5.6 CARBINE M4				9,200,000	0		
M16 RIFLE					3,052,000		
SEMITRAILERS, FLATBED				8,300,000	8,308,000		
SEMITRAILERS, TANKERS				7,900,000	4,357,000		
HI MOB MULTI-PURP WHLD VEH (HMMWV)				4,700,000	4,668,000		
FAMILY OF MEDIUM TACTICAL VEH (FMTV)				207,100,000	224,686,000		
FIRETRUCKS & ASSOCIATED FIREFIGHTING EQUIPMENT				2,400,000	603,000		
FAMILY OF HEAVY TACTICAL VEH (FHTV)				52,400,000	50,109,000		
TRUCK, TRACTOR, LINE HAUL M915A2				43,000,000	38,865,000		
ACUS MOD PROGRAM				10,900,000	10,921,000		
TSEC-ARMY KEY MGT SYSTM (AKMS)				1,300,000	0		
ALL SOURCE ANALYSIS SYSTEM				14,900,000	20,449,000		
PROPHET GROUND				1,200,000	0		
MODIFICATION OF IN-SERVICE EQUIPMENT				24,500,000	24,535,000		
FORCE XXI BATTLE CMD BRIGADE & BELOW				14,600,000	14,632,000		
ADVANCED FIELD ARTILLERY TACTICAL DATA SYSTEM				37,000,000	37,047,000		

FY 2003 Planned vs Actual Procurements and Transfers

Nomenclature	Equip No.	FY 2003 Transfers (# of items)		FY 2003 Procurements (\$s)		FY 2003 NGREA (\$s)	
		Plan	Actual	Plan	Actual	Plan	Actual
FAAD C2				13,300,000	13,303,000		
FORWARD ENTRY DEVICE				15,100,000	0		
LOGTECH				1,500,000	1,542,000		
ISYCON EQUIPMENT				9,800,000	12,686,000		
MANUEVER CONTROL SYSTEM				700,000	727,000		
STAMIS TACTICAL COMPUTERS				17,900,000	17,872,000		
AUTOMATED DATA PROCESSING EQUIPMENT				2,500,000	1,864,000		
RESERVE COMPONENT AUTOMATION SYSTEM				11,600,000	11,600,000		
OTHER SUPPORT EQUIPMENT				98,500,000	78,923,000		
SPARES AND REPAIR PARTS				600,000	0		
SINGARS CASCADE						7,300,000	7,300,000
SINGARS - AIRBORNE						3,300,000	2,941,400
HEMTT TANKER, M978						2,900,000	2,852,610
HEMTT WRECKERS						3,204,000	3,368,016
PVS-7D NIGHT VISION GOGGLE						3,902,700	3,972,384
HMMWV						2,870,000	2,579,548
FMTV MTV 5-TON TRUCK M1083						4,900,000	4,931,042
METEOROLOGICAL MEASURING SYSTEM						1,455,000	1,455,000
TOTAL				\$1,016,900,000	\$906,101,000	\$29,831,700	\$29,400,000

Major Item of Equipment Substitution List

NOTE: This table identifies equipment authorized by the Service to be used as a substitute for a primary item of equipment. The table also identifies whether or not the item is able to be deployed in wartime. This data meets the Title 10 requirement to identify equipment that is not the most desired item of equipment.

Required Item Nomenclature	Reqd Item Equip No.	Substitute Item Nomenclature	Substitute Item Equip No.	FY 2007 Qty	Deployable?	
					Yes	No
AIRPLANE CARGO TRANSPORT: C-12F	A30062	AIRPLANE CARGO TRANSPORT: C-12R	WV0974	2	X	
AIRPLANE CARGO TRANSPORT: C-12F	A30062	AIRPLANE CARGO TRANSPORT: C-12C	A29744	5	X	
AIRPLANE CARGO TRANSPORT: C-12F	A30062	AIRPLANE CARGO TRANSPORT: C-12D	A29812	7	X	
ALARM: CHEMICAL AGENT AUTOMATIC M22	A33020	ALARM CHEMICAL AGENT AUTOMATIC: PORTABLE MANPACK M8A1	A32355	6,348	X	
ARMORED PERSONNEL CARRIER M113A3	C18234	CARRIER COMMAND POST: M577 & APC M113A2	2 LINS	1,079		X
INFANTRY FIGHTING VEHICLE: M2A2	F40375	INFANTRY FIGHTING VEHICLE: M2	J81750	44		X
CAVALRY FIGHTING VEHICLE M3A2	F60530	ARMORED PERSONNEL CARRIER M113A3	C18234	13	X	
HELICOPTER UTILITY: UH-1V	H31872	HELICOPTER UTILITY: UH-1H	K31795	5		X
HELICOPTER UTILITY: UH-60L	H32361	HELICOPTER UTILITY: UH-60A	K32293	82	X	
GRADER ROAD MOTORIZED: DSL DRVN HVY 6X4	J74852	GRADER ROAD MOTORIZED: DSL DRVN HVY (CCE)	G74783	16	X	
METEOROLOG SET: (MMS)AN/TMQ-41	M35941	NON-STANDARD LIN	35941M	3	X	
LASER INFRARED OBSERVATION SET (MELIOS): AN/PVS-6	M74849	LASER INFRARED OBSERVATION SET: AN/GVS-5	L40063	1,478	X	
NIGHT VISION SIGHT CREW SERVED WEAPON: AN/TVS-5	N04596	NON-STANDARD LINS AND OBSOLETE SIGHTS	MULTIPLE	2,511		X
NIGHT VISION GOGGLE: AN/PVS-7B	N05482	NIGHT VISION GOGGLES: AN/PVS-5	N04456	29,547	X	
NIGHT VISION GOGGLE: AN/PVS-7B	N05482	MONOCULAR NIGHT VISION DEVICE: AN/PVS-14	M79678	35,102	X	
NIGHT VISION GOGGLE: AN/PVS-7B	N05482	NIGHT VISION SIGHT MINIATURIZED: AN/PVS-3	K08404	137		X
NIGHT VISION GOGGLE: AN/PVS-7B	N05482	NIGHT VISION SIGHT INDIVIDUAL SERVED WEAPON: AN/PVS-4	N04732	12,227	X	
RADIO SET: AN/VRC-92A	R45407	VARIOUS MODEL VRC-12 (OBSOLETE)	4 LINS	401		X
RADIO SET: AN/VRC-92A	R45407	VARIOUS SINCGARS MODELS	4 LINS	161	X	
RADIO SET: AN/PRC-112	R82903	RADIO SET: AN/PRC-90	Q38335	3,353		
RADIO SET: AN/PRC-119A	R83005	RADIO SET: AN/PRC-77 (OBSOLETE)	Q38299	111		X
RADIO SET: AN/PRC-119A	R83005	RADIO SET: AN/VRC-88A,90A & 91A	3 LINS	614	X	
ROLLER VIBRATORY: SELF-PROPELLED HIGH IMPACT SINGLE DRUM (CCE)	S12916	NON-STANDARD LINS	MULTIPLE	32	X	
ROLLER VIBRATORY: SELF-PROPELLED HIGH IMPACT SINGLE DRUM (CCE)	S12916	ROLLER MOTORIZED: VIBRATORY ROLLER TYPE II	R11127	30	X	
SEMITRAILER FLAT BED: BREAKBULK / CONT TRANSPORTER 22.5T M871	S70027	SEMITRAILER STAKE: 12T 4 WHL M127	S72024	203	X	
SEMITRAILER FLAT BED: BREAKBULK / CONT TRANSPORTER 22.5T M871	S70027	SEMITRAILER LOW BED: 25T 4 WHL M172	S70517	165	X	
SEMITRAILER FLATBED: BREAKBULK / CONT TRANSPORTER CML 34T, M872	S70159	SEMITRAILER LOW BED: 25T 4 WHL M172	S70517	20	X	

Major Item of Equipment Substitution List

Required Item Nomenclature	Reqd Item Equip No.	Substitute Item Nomenclature	Substitute Item Equip No.	FY 2007 Qty	Deployable?	
					Yes	No
SEMITRAILER LOW BED: 40 TON 6 WHEEL	S70594	SEMITRAILER LOW BED: 25T 4 WHL M172	S70517	133	X	
SEMITRAILER TANK: 5000 GAL FUEL DISPENSING AUTOMOTIVE M969	S73372	SEMITRAILER TANK: FUEL 5000 GALLON 12T 4 WHL M131	S72846	25	X	
SEMITRAILER TANK: 5000 GAL FUEL DISPENSING AUTOMOTIVE M969	S73372	SEMITRAILER TANK: 5000 GAL BULK HAUL M967	S10059	8	X	
SEMITRAILER TANK: 5000 GAL FUEL DISPENSING AUTOMOTIVE M969	S73372	SEMITRAILER TANK: FUEL SERVICING 5000 GAL 12T 4 WHL M131	S72983	63	X	
TRUCK UTILITY: HEAVY VARIANT HMMWV 4X4 M1097	T07679	OBSOLETE CUCV AND M35 SERIES TRKS	3 LINS	95		X
TRUCK UTILITY: HEAVY VARIANT HMMWV 4X4 M1097	T07679	TRUCK UTILITY: S250 SHELTER CARRIER 4X4, HMMWV M1037	T07543	1,476	X	
TRUCK CARGO: MTV W/W M1083	T41135	VARIOUS 5 TON TRUCK CARGO: 5T 6X6	3 LINS	133		X
TRUCK CARGO: MTV W/MHE M1084	T41203	TRUCK CARGO: MTV LWB W/MHE W/W M1086 & M1083 MTV	2 LINS	33	X	
TRUCK CARGO: MTV W/MHE M1084	T41203	TRUCK CARGO: DROP SIDE 5T 6X6	2 LINS	61	X	
TRUCK CARGO: TACTICAL 8X8 W/LT CRANE HEMTT M977	T59278	TRUCK CARGO: 5T 6X6 VARIOUS MODELS	3 LINS	25	X	
TRUCK CARGO: 4X4 LMTV M1078	T60081	TRUCK CARGO: 2.5T 6X6 (OBSOLETE)	4 LINS	1,843		X
TRUCK CARGO: 4X4 LMTV M1078	T60081	TRUCK CARGO: 5T 6X6 VARIOUS MODELS	6 LINS	565	X	
TRUCK TRACTOR: MTV M1088	T61239	TRUCK TRACTOR: 5T 6X6	X59326	1,013	X	
TRUCK TRACTOR: MTV M1088	T61239	TRUCK TRACTOR: 5T 6X6 W/W	X59463	110	X	
TRUCK UTILITY: CARGO/TROOP CARRIER 5/4T 4X4 HMMWV M998	T61494	TRUCK UTILITY/CARGO: 5/4T 4X4 M1008, M1009 & M1028 CUCVs	4 LINS	5,108		X
TRUCK UTILITY: CARGO/TROOP CARRIER 5/4T 4X4 HMMWV M998	T61494	TRUCK UTILITY: S250 SHELTER CARRIER, HMMWV VARIOUS MODELS	5 LINS	2,352	X	
TRUCK UTILITY: 4X4 HMMWV M1113	T61630	TRUCK UTILITY: ARMT CARRIER ARMD 5/4T 4X4 W/W, HMMWV M1026	T92310	4	X	
TRUCK CARGO: MTV LWB M1085	T61704	TRUCK CARGO: 5T 6X6 XLWB	2 LINS	27	X	
TRUCK CARGO: MTV M1083	T61908	TRUCK CARGO: 5T 6X6 VARIOUS MODELS	X40831	2,126	X	
TRUCK WRECKER: HEMTT, M984	T63093	TRUCK WRECKER: 5T 6X6 W/W	X63299	214	X	
TRUCK LIFT: FORK VARIABLE REACH ROUGH TERRAIN	T73347	TRUCK LIFT FORK: DSL DRVN 6000 & 10000 LB CAP ROUGH TERRAIN	3 LINS	263	X	
TRUCK TANK: FUEL SERVICING 2500 GALLON, HEMTT, M978	T87243	TRUCK CARGO: 5T 6X6 VARIOUS MODELS	3 LINS	29	X	
TRUCK TANK: FUEL SERVICING 2500 GALLON, HEMTT, M978	T87243	TANK AND PUMP UNIT LIQUID DISPENSING TRUCKMOUNTING:	V12141	474	X	
TRUCK UTILITY: UP ARMORED HMMWV 4X4 M1114	T92446	ARMT CARRIER ARMD 5/4T, HMMWV M1025 & M1026 (NON-ARMORED)	T92242	637	X	
TRUCK VAN: LMTV, M1079	T93484	TRUCK VAN: SHOP 2.5T 6X6	X62340	244		X
TRUCK WRECKER: MTV, M1089	T94709	TRUCK WRECKER: 5T 6X6 W/W	X63299	266	X	
TRACTOR FULL TRCKD LOW SPD: DSL MED DBP W/BULDOZ W/SCARIF RIPPER	W83529	TRACTOR FULL TRCKD LOW SPD: DSL HVY DBP W/BULDOZ W/RIPPER (CCE)	W88699	26	X	

Major Item of Equipment Substitution List

Required Item Nomenclature	Reqd Item Equip No.	Substitute Item Nomenclature	Substitute Item Equip No.	FY 2007 Qty	Deployable?	
					Yes	No
TRACTOR FULL TRCKD LOW SPD: DSL MED DBP W/BULDOZ W/SCARIF RIPPER	W83529	TRACTOR FULL TRCKD LOW SPD: DSL MED DBP W/BULDOZ W/SCARIF WINCH	W76816	190	X	
TRUCK DUMP: 20 TON DSL DRVN 12 CU YD CAP (CCE)	X44403	NON-STANDARD LINs	MULTIPLE	16		X
TRUCK DUMP: 20 TON DSL DRVN 12 CU YD CAP (CCE)	X44403	TRUCK DUMP: 5 TON 6X6	X43708	12	X	

ARNG **Significant Major Item Shortages**

Table 8

<p><i>NOTE: This table provides an RC top ten prioritized (PR) shortage list for major items of equipment required for wartime missions but which are currently not funded in the FYDP. It lists the total quantity required, the total unfunded requirement, the individual item cost, and the cost of the unfunded portion. This data is consistent with other unfunded data submitted by the Service.</i></p>						
PR	Nomenclature	Total Req'd	# Items Short	Item Cost	Total Shortage Cost	Rationale/Justification
1	HMMWV	50,473	20,402	161,000	3,284,722,000	Projected UFR with modular transformation, SBE and battle losses. Cost is the average of all variants.
2	Family of Tactical Vehicles (FMTV)	36,082	24,116	190,000	4,582,040,000	Replaces obsolete 2 1/2 and 5 ton vehicles for mobilizations and modernization. Cost is the average of all variants.
3	SINCGARS	138,116	20,156	11,000	221,716,000	Shortfall to complete fielding for ARNG after modularity. Critical system for all missions.
4	Small Arms M4 Carbine	132,362	48,845	1,200	58,614,000	These systems are paramount for OIF/OEF operations. This group includes the M4 Carbine, M249 Squad Automatic Weapon (SAW), M240B Machine Gun, MK19 Automatic Grenade Launcher.
	Small Arms M249 SAW	33,409	3,733	3,000	11,199,000	
	Small Arms M240B MG	5,649	220	9,000	1,980,000	
	Small Arms MK19 Grenade launcher	9,862	1,530	15,000	22,950,000	
5	AN/PAS-13 version 1/2/3 Thermal Crew Served Weapon Sight	51,551	49,491	17,300	856,194,300	Fills critical shortages of crew served weapons night sights. Cost is average of all three models.
	Night Vision Goggles PVS-7D/PVS-14	225,183	124,559	4,000	498,236,000	Critical for all missions especially HLD/HLS. GWOT shortages drain capability from HLD/HLS assets.
6	M22 ACADA Chemical Agent Alarm System	19,247	18,161	10,000	181,610,000	Chemical Agent alarm system. Man-portable and vehicle mounted. Critical for HLD/HLS and GWOT missions.
	ICAM- Improved Chemical Agent Monitor	11,881	5,613	10,000	56,130,000	Hand held, soldier operated for monitoring chemical agents. Critical for HLD/HLS and GWOT missions.
7	HEMTT Wreckers	924	117	360,000	42,120,000	HEMTTs are still a critical shortfall for ARNG mobilizations. There are no substitutes for this capability.
	HEMTT Tankers	2,118	428	305,000	130,540,000	
	HEMTT LHS	2,865	2,262	227,000	513,474,000	
8	Movement Tracking System (MTS)	23,602	12,514	24,000	300,336,000	Provides vital tracking & communication system used primarily with supply/support vehicles. Critical for HLD/HLS and GWOT missions.
9	Shadow 200 TUAV	36	35	15,200,000	532,000,000	Tactical Unmanned Aerial Vehicle provides reconnaissance, surveillance, target acquisition, and battle assessment
10	DAGR - Defense Advanced GPS Receiver	70,679	63,487	2,400	152,368,800	Provides real-time position, velocity, and navigation. Hand held for dismounted and vehicle operations.

III. United States Army Reserve (USAR) Overview

A. Current Status of Equipment

1. General Overview

In today's strategic environment, the Army Reserve (AR) faces substantive challenges as we adapt to meet the requirements created to support the Army during this time of conflict in both Iraq and Afghanistan. As our country enters the fourth year following the terrorist attacks of September 11, the AR remains decisively engaged with the Army in joint and expeditionary operations around the world. Throughout 2004, the AR maintained an average of more than 50,000 soldiers mobilized per month—most deployed in the aforementioned conflicts. Since 2001, more than 120,000 AR soldiers answered the call to serve on active duty. In support of these soldiers, the AR reported as having only 76 percent of the required equipment on-hand. Skillful management through the use of stay behind equipment, cross leveling, and new Army procurements has allowed the AR to meet its current obligations. More importantly, meeting future obligations will require the AR to do much more than focus primarily on managing current resources. A continued high level of operations will require additional expenditures to compensate for the high level of activity in recent years on the AR's older equipment, and the anticipated continuing equipment usage in the near future. Additionally, the AR must position itself to support the Army's transformation to a modular force. A modular Active component (AC) combat force requires equipment compatibility with the support force provided by the AR, including tactical communications, weapons, vehicles, and battle command and control systems.

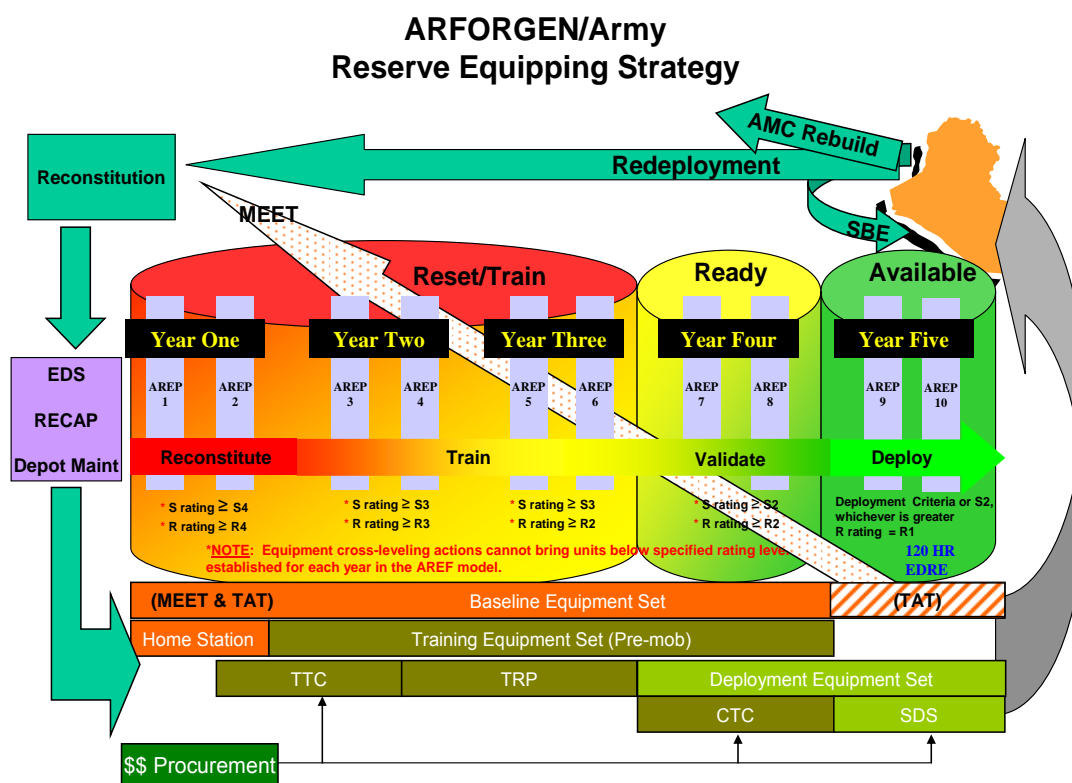
The AR maintains a high operational tempo (OPTEMPO) and is fully engaged, ready and relevant to fighting the nation's Global War on Terrorism (GWOT). Equipment modernization and sustainment efforts must be a high priority in order to continue the AR's integration to the Army. Adequate funding for procurement of modern equipment is essential to maintain relevancy and operational readiness.

A paradigm shift in our equipment strategy is underway in order to meet the AR equipment demands. The large amount of substitutes and in-lieu of (ILO) items found in the AR's inventory significantly diminishes our units' ability to deploy as "plug and play" units in a modular Army environment. Additionally, in some cases, guidance from the supported Theater has restricted the deployment of certain substitute and ILO items because of incompatibility, interoperability, or supportability. As the OPTEMPO of the AR has increased, so has the challenge of properly training and equipping the force. Now, more than ever, equipping the force and training sites require our attention, energy and innovation. Without the right equipment available on time, we risk our soldiers' ability to accomplish the mission and we jeopardize their survivability, safety and morale.

The AR devised a compelling new strategy that revolutionizes our force structure so that we can *equip, train, and mobilize* AR units for the fight. This new strategy is the AR Expeditionary Force (AREF). The AREF was implemented to sustain the numbers of AR units and soldiers needed to meet the continuing requirements of the GWOT. This model offers predictability through a five-year rotation cycle. Under the AREF construct, resources are aligned in accordance with where units are in the rotation cycle instead of resourcing by tiers. The AREF model includes 10 AR Expeditionary Packages (AREPs) which place the most

modern equipment available with the deploying units. The remaining equipment is divided among the unit's home station; the collective training sites, Combat Training Centers (CTCs) and the Training Readiness Platforms (TRPs); and at the individual training sites, The Army School System Training Centers (TTCs).

The AR's new equipping strategy is synchronized with the five-year AREF rotation cycle. As units AREF progress through each year of the five-year rotation cycle, their state of readiness increases incrementally. Units in year-five are at the highest level of readiness, while units in year-one are at the lowest level. The strategy maximizes the use of limited modernized equipment. The five year equipping strategy will begin with year-one, reconstitution, and finish with year-five, employment. The figure below graphically depicts this cycle.



2. Status of Equipment

a. Equipment On-Hand (EOH)

Equipment demands have risen while the AR remains short nearly a quarter of its required equipment. As of September 30, 2005, the AR was resourced to 78 percent of its equipment requirements. This percentage represents equipment on-hand rather than actual modernization requirements. The equipment on-hand percentage includes substitutes and ILO items which are authorized in accordance with regulatory guidance for reporting equipment. Approximately 31 percent of the AR equipment on-hand is obsolete or non-compatible with the modern force. This equipment includes M16A1 rifles, communication systems, M35s (2.5-ton trucks), M800 series trucks (5-ton trucks), night vision goggles (NVG), and generators. In order

to compensate for the use of substitutes, ILO, and obsolete items, the AR cross leveled approximately 265,900 pieces of equipment, to date, to meet the operational requirements.

While the equipping challenges of the early deploying units were met, the continued operational support of OIF and OEF is placing additional strain on the AR equipment on-hand (EOH) and equipment readiness (ER) status. Under resourcing, increased deployment readiness criteria, increased demand for critical but unauthorized equipment (e.g., NVG, M4 carbine rifles, crew served weapons, global positioning systems), Stay behind Equipment (SBE) contributions, Equipment Demobilization Site (EDS) backlog, and the incompatibility of older substitute items exacerbate the EOH situation. These factors directly impact the training and readiness of our next deploying units.

b. Stay Behind Equipment (SBE)

The SBE program is sponsored by Department of the Army (DA). It was established in order to meet operational requirements and shortfalls in theater. SBE is centrally managed in theater and the equipment is used by all components of the Army, other services, and contractors. The SBE falls into several categories, from short term use to permanent stay behind for the duration of the operation. This equipment includes high demand items such as trailers, generators, NVG, Palletized Load System, POL tankers, and all vehicles fitted with add-on armor. SBE supports the operational needs of the current deploying units; however, the initial resourcing of the SBE has created a shortage of equipment available to meet the training needs of the non-deploying units. In addition, the AR contribution to SBE has lowered the EOH readiness of the non-deployed AR units. It is unknown at this time as to when the SBE will return to the AR, or be replaced.

c. Average Age of Major Items of Equipment

Major items of equipment continue to plague the AR as they near or pass their economical useful life. A few examples include the current light and light-medium tactical truck fleets, materiel handling and engineer equipment. Aging equipment causes operational and sustainment costs to increase while equipment serviceability rates decrease, thereby having a negative impact on unit readiness. The equipment inventory being used in support of OIF is aging more quickly than originally planned due to high use and a harsh operational environment. AMC estimates that 1 year in theater equates to 4-5 years of peacetime usage.

d. Compatibility of Current Equipment with the Active Component

More than three years of experience has highlighted some incompatibility and interoperability issues between AR and AC equipment. The lack of compatibility degrades our ability to support the fight.

e. Equipment Demobilization Sites (EDS)

Equipment returning from theater enters the EDS for reconstitution prior to being returned to the AR. The heavy demand on these sites has created a maintenance backload on AR equipment. This reconstitution backlog severely limits the AR's ability to support future mobilization operations, equip training sites, conduct home station training, and provide Military Support to Civil Authorities, Homeland Defense and Homeland Security contingencies.

Although the backlog has improved from approximately 9,800 pieces of equipment to roughly 7,300 pieces, it continues to impact the AR's ability to support future operations.

f. Maintenance Issues

i. Field Level Maintenance

The operational readiness rate in the AR is 93 percent for reportable equipment. This percentage applies to less than ten percent of all AR equipment. Readiness rates remain high because commanders place most of their managerial emphasis on maintaining readiness of their reportable equipment at the expense of non-reportable (applies only to EOH computations, not maintenance of) equipment. It is estimated that 44 percent of all AR equipment has deferred services or is not receiving scheduled services due to shortages of civilian and military maintenance technicians, time, and funding.

AR maintenance activities, called Area Maintenance Support Activities (AMSA), have been established to perform unit-level maintenance beyond the unit's capability to perform due to time and required training constraints on weekend training periods. The maintenance activities are designated as (G) for ground support equipment, (W) for watercraft, or (G/W) for ground and watercraft. Average staffing for an AMSA is 10-12 personnel. Currently, AMSA shops are staffed at 59 percent of authorizations and 25 percent of those are deployed in support of OIF and OEF. Simply stated, the AR is currently facing a 4.1 million man-hour maintenance backlog. This translates into a \$375M funding shortfall since our last manpower survey conducted in FY 2001. This situation is made worse by the requirement for AMSA employees to be "dual status" Military Technicians. These employees are subject to unplanned mobilizations that reduces staff at a time of increasing demands. The AR has developed programs to modernize and reduce the numbers of its facilities. This is accomplished by leveraging commercially available services and practices needed to reduce the backlog and cost of equipment and personnel resources needed to maintain AR equipment readiness. This program is called Army Reserve Logistics XXI and requires a capital investment of \$175M.

In addition to AMSAs, AR Equipment Concentration Sites (ECS) have a maintenance branch with an area support mission, along with a storage branch for equipment that goes beyond the capability of an owning unit commander to store, maintain, or utilize at home station. To reduce maintenance requirements and increase the service life of equipment, the AR is pursuing the use of Controlled Humidity Preservation (CHP). This program places unit sets of equipment in CHP at storage sites located at strategic locations near ports of embarkation, including overseas ports. It will not only reduce AR maintenance costs, but support overseas training objectives of the AR and the war-fighting Combatant Commanders, while increasing the readiness and speed of deployment of high demand AR units to the war fight. The initial capital investment required to execute this program is \$256M.

The Army, under ARFORGEN models and rotations of units in support of the OIF and OEF, has initiated the pooling of equipments sets at unit and individual training sites. These sites are to support unit training at Training Readiness Platforms (TRP) and individual training and The Army School System (TASS) Training Centers (TTCs). The sets, consisting of large quantities of mobile equipment, will be positioned at numerous installations CONUS-wide to maintain the proficiency of units between deployment rotations. This is another financial burden

that substantially increases use of RC resources without augmentation to meet mission requirements. This increases the OPTEMPO of this equipment from low usage services back into the mainstream full services requirements. Staffing levels in the AR are based on low usage and reduced service requirements and OPTEMPO program budgets. This is no longer the case. Our equipment is being absorbed into the mainstream and no longer qualifies for reduced maintenance levels. The services required basically double our resource requirements to meet this demanding schedule. Instead, our OPTEMPO for maintenance was reduced by 50 percent from FY 2005.

ii. National Level Maintenance

Due to limited funding, the AR has become adept at developing alternatives that stretch funds and extend the life of existing equipment. The AR relies on limited overhaul and rebuild programs of existing equipment to retain mission capabilities. Upgrading existing equipment, through rebuild initiatives and depot maintenance programs, is the AR's only method to extend the service life of equipment.

In partnership with industry, the AR is working to infuse commercial concepts into combat-service-support (CSS) improvement initiatives. This will allow the AR to use commercial industry for the manufacture of CSS equipment and follow-on rebuild or overhaul. The AR understands the need to optimize all equipment funding sources and encourages the Army to design equipment with the intent to remanufacture. All new equipment procurements should include both prognostics, as well as diagnostics, as part of its design and manufacture.

iii. Sustainment Initiatives

The following initiatives are examples of how the AR has partnered with industry to design and implement total rebuild and refurbishment programs.



**M915A4 Glider
Truck Tractor**

The AR is authorized 3,229 in FY 2006 of the M915, Truck Tractor, Line Haul, 14 ton and currently has 1,729 on-hand as of September 2005. Of the authorized quantity, 2,494 of these trucks are Pacing items for AR units. These trucks are over 30 years old and without this overhaul program to improve readiness of on-hand quantities the readiness implications could potentially make the units non-deployable. The M915A1 truck, in its current configuration, does not meet the requirements for modularity and deployment. With

the overhaul of these assets, the AR would be capable of equipping some AR units with a reliable, ready asset when mobilized.

The M878/M878A1, 5-ton Tractor (LIN T60353) is designed for terminal yard operations such as spotting and moving trailers. The AR requires 141 M878 tractors and has 36 on-hand. NGRE resources will purchase an additional 68 M878A2 tractors between FY 2004 and FY 2005. Ottawa Truck, the original manufacturer, conducted a proof of principle to install a new cab, controls, instrumentation, and wiring on the older model of tractor



**M878/M878A1
5-Ton Tractor**

(1978), which will extend the projected service life.

The Lubricating and Servicing Unit (LIN L85283) is a trailer-mounted, self contained, gasoline-powered unit equipped for heavy duty servicing and lubrication of all types of equipment and components. The AR lube unit fleet was manufactured in the late 1960s to early 1970s and has exceeded its projected 20-year service life. The AR is authorized 150 units and currently has 127 on-hand. This equipment will be retained at least through 2012 until either a suitable replacement is identified for procurement and funded, or a change is made to sustainment doctrine. The finding of a recently conducted feasibility assessment proposes initiating a two-phase proof of principle. The first phase will replace the gasoline engines and exhaust systems with diesel engines and new exhaust systems. The second phase proposes overhauling the on-hand fleet by using the first phase product and upgrading, replacing, or rebuilding all deficient systems. In addition, the AR has acquired 94 units located at Sierra Army Depot under the control of U.S. Tank Automotive and Armament Command. These units have never been issued and have been at the depot approximately nine years. The AR will bring these items to the same standards and configuration as proposed in the study and replace the oldest systems on-hand with our units.



Lubricating & Servicing Unit



4,000-LB Forklift

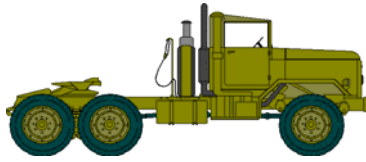
There are three models of the 4,000-lb Forklift (LIN T49255), the Materiel Handling Equipment (MHE)-237, MHE-270 and MHE-271 forklifts. The MHE-237 forklift was manufactured between 1981 and 1983 and already exceeds its expected 15-year economic useful life. The other models were manufactured between 1995 and 1996. The AR requirement is 726 forklifts and the AR has 670 on-hand. It is unlikely that additional MHE-237s will be cascaded to the AR. The AR has initiated a proof of principle partial overhaul of one MHE-237 forklift to determine the economic feasibility of the program, document overhaul procedures, and determine the most cost effective method of sustaining the 4,000-lb forklifts in the future. An additional 80 were overhauled in FY 2004 and 60 more in FY 2005 at Red River Army Depot.



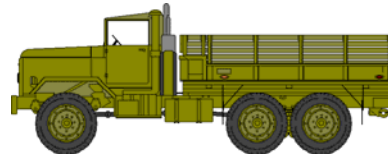
10,000-LB Forklift

The 10,000-lb. Forklift (LIN T49119) has a capacity of 10K pounds, a 48-inch load center, and can lift a load to a maximum of 121.6 inches. It has an estimated useful life of 15 years. There are 425 of these forklifts on-hand in the AR. The forklift was manufactured and fielded from 1979 to 1985 and is past its expected 15-year life span. The All Terrain Lifter Army System (ATLAS) replaces this forklift. The AR requirement will be 961 ATLAS forklifts by 2007, but has only received 401. Consequently, all of the older 10K forklifts will be retained to meet requirements. There are 371 forklifts that scheduled for overhaul between FY 2005 and FY 2009.

The 900 series trucks provide transportation, hauling and towing of just about everything in the equipment inventory. These trucks transport troops, supplies, ammunition, materials, construction items, etc. The M900 entered Army inventory in 1982 and is past its expected 22-year life span.



M931 5-Ton Tractor



M923 5-Ton Cargo

g. Modernization Programs and Shortfalls

Listed below are the some of the AR's top modernization shortages which are also listed in *Table 8*. These systems all have unfunded requirements that are not currently projected to be filled through Army procurement for modularity, and NGREA or congressional adds.

The Family of Medium Tactical Vehicles (FMTV) is built around a common chassis and drive train, featuring over 80 percent commonality of parts and components between models and weight classes. The FMTV is a key logistics enabler and reduces the Army's logistical footprint by providing commonality of parts and components, reduced maintenance downtime, and lower operating and support costs than older trucks. It replaces maintenance-intensive trucks currently in the medium tactical vehicle fleet. Typical missions include line haul, local haul, unit mobility, unit re-supply and other missions in the combat, combat support (CS) and CSS roles. The FMTV consists of a common truck chassis that is used for several vehicle configurations in two payload classes. As indicated in *Table 8*, the AR has a projected total unfunded requirement of 4,876 FMTVs. The FMTV is one of the AR's highest equipment priorities.



Family of Medium Tactical Vehicles (FMTV)



The High Mobility Multipurpose Wheeled Vehicle (HMMWV) provides a common light tactical vehicle capability in a wide variety of environments. The HMMWV is produced in several configurations to support weapon systems, command and control systems, field ambulances; troop and general cargo transport, and replaces the CUCV. The basic cost of a HMMWV is \$116K. The projected AR unfunded requirement is 3,827 HMMWVs.

High Mobility Multipurpose Wheeled Vehicle (HMMWV)

The Up-Armored HMMWV is designed to provide light tactical vehicle capability in a wide variety of environments with the addition of light armor to protect soldiers against small arms fire and land mines. The Up-Armored HMMWV is critical Force Protection equipment used by Military Police, Special



Up-Armored High Mobility Multipurpose Wheeled Vehicle (HMMWV)

Operations and contingency forces. The average cost of an Up-Armored HMMWV is \$179K. The projected AR unfunded requirement is 283 HMMWVs.



Armored Security Vehicle (ASV)

The Armored Security Vehicle (ASV) is an armored wheeled vehicle equipped with a turret and armament system designed to meet the security mission requirements of the Military Police Corps. It is a light-armored, all wheeled vehicle that provides increased ballistic and landmine protection to the MPs. The ASV meets the stringent requirements for deployability, reliability, and crew maintainability demanded by the Army/Air Force Joint Operational Requirements Document. The ASV offers exceptional crew protection through the employment of a modular expandable armor system that consists of ceramic composite appliqué on the exterior surfaces and spall liner on the interior. The total AR unfunded requirement is 253 ASVs at \$810K each.

The All Terrain Army Lifting System (ATLAS) is a self deployable rough terrain, manually operated forklift capable of operating efficiently in a wide variety of environmental conditions. The ATLAS lifts 10,000 lbs and can stuff and un-stuff various sized containers. Production of the ATLAS was temporarily halted at the end of FY 2004 and will resume in FY 2007. The total AR unfunded requirement is 455 at a cost of \$110K each.



All Terrain Army Lifting System (ATLAS)



HEMTT Load Handling System (LHS)

The HEMTT Load Handling System (LHS) is a modified HEMTT M977 Cargo Truck redesigned to incorporate the LHS used on the PLS. It is designed for rapid transport of all classes of supply with a payload capacity of 22,000 pounds. The HEMTT LHS is interoperable with NATO standard flatracks and air transportable in the C-130 aircraft. The HEMTT LHS system utilizes the M1076 Trailer, M1077/M1077A1 flatrack, M1 flatrack, CROP flatrack, and Container Handling Unit (CHU) currently employed by the PLS system. It can also be used with the

2500 gallon fuel racks. The AR projected total unfunded requirement is 85 systems at a cost of \$230K each.

h. Overall Equipment Readiness

To meet equipment readiness standards, the AR often substitutes equipment that does the same job, but typically requires training, maintenance and repair parts that differ from the actual items listed on authorization documents. For example, the AR continues to substitute 1980s vintage 5-ton trucks and 1960s series 2½-ton trucks in place of more modern light medium tactical vehicles and family of medium tactical vehicles.

Another challenge that the AR faces is the lower priority given to CSS equipment such as trucks, trailers, communications and medical systems that are to be developed or procured under

the Army's modernization program. The result is that the AR receives limited amounts of modernized equipment, further aggravating the equipping situation.

Until the AR is fully equipped with modern items, it is increasingly important that we take care of what we have. Sustaining on-hand equipment requires full funding of operations and maintenance accounts and the continuing support of the Army's depot maintenance program. These resources are essential to extending service life, reducing life-cycle costs and improving safety for AR soldiers.

In FY 2005, the AR rebuilt the following systems to enhance equipment readiness and capability.

429 HMMWVs	36 5 Ton Cargo Trucks
24/60 10K/4K - Forklifts	120 22.5 Ton Semi-Trailers
29 5000 Gal Fuel Tankers	75 40 Ton Low Bed Semi-Trailers
12 M787 Yard Tractors	144 34 Ton Flat Bed Semi-Trailers
9/10 HEMTT Cargo Truck & Fuel Tankers	635 ¾ 5 Ton Trailers
24 5-Ton Dump Trucks	\$14.9M–Watercraft & Rotary Wing
106 5-Ton Tractors	\$ 3.6M–Communication Equipment

The National Guard and Reserve Equipment Appropriation (NGREA) has been vital in the effort to improve AR equipping. Over the past five years, NGREA has addressed some critical shortfalls. During that time, the AR has received an average of \$67.5M annually to procure additional end items the Army has been unable to furnish through the normal budget process.

The following equipment was purchased with NGREA funds during FY 2004 for delivery in future fiscal years.

8 Personnel Recovery Systems	43 5-Ton Medium Tactical Vehicles
9 Yard Tractors, M878A2	60 Line Haul Tractors, M915A3
10 Rough Terrain Container Handlers	224 Antennae for High Frequency Radios
557 Night Vision Goggles, AN/PVS-14	1,707 M4 Carbine Rifles
54 2.5-Ton Medium Tactical Vehicles	

i. Other Equipment Specific Issues

The current status of M915A3 truck tractors is a major concern for the AR. The AR has a requirement of 2,412 systems and a total of 290 systems on-hand. The AR is scheduled to buy 51 with FY 2004-2005 NGREA. Unless more systems are bought in the near future, the contract will cease in 2007.

Major systems projected for receipt by the AR in FY 2004-2005 and beyond as a result of Army P-1R, NGREA, or modification/rebuild programs include:

Night Vision Devices	Family of Medium Tactical Vehicles
Laser Marksmanship Training Systems	HMMWVs
High Frequency Radios	AVLB Upgrades to MLC 70
Defense Advanced Global Positioning Receiver (DAGR)	Trailer Conversions from M101A1 to M101A3
Movement Tracking System	Rough Terrain Container Handler
Tactical Electrical Power 60KW	All Terrain Lifting Army System
Semi-Trailer, Break-bulk, Flatbed 22.5T M871A3	Tactical Fire Fighting Truck
Small Arms	Light Tactical Trailer

B. Changes Since Last NGRER

The AR has implemented the Equipment Strategy whereby the minimum essential equipment for training is placed at the units and the remaining equipment is divided among the centralized managed individual and collective training sites. The premise behind this strategy is to maximize the use of the limited modernized equipment in order to provide trained and ready troops. The Army's resourcing priority was to the Brigade Combat Teams (BCTs). As a result, the AR was under-resourced in the FY 2006–2011 POM. For FY 2005 and 2006, the AR relied heavily upon the success of the Army Equipment Conferences and the use of Theater Provided Equipment (TPE) for deploying forces.

C. Future Years Program (FY 2007–FY 2009)

1. FY 2007–FY 2009 Equipment Requirements

Previously identified modernization shortfalls continue through FY 2009.

2. Anticipated New Equipment Procurements

Table 3 reflects the service-planned procurements from P-1R data.

3. Anticipated Transfer from AC to RC

Table 5 reflects data regarding equipment transfers from AC to the RC.

4. Anticipated Withdrawals from RC Inventory

Table 5 reflects AR projected equipment transfer and withdrawal quantities.

D. Summary/Conclusions

The way the Army previously equipped the AR no longer fits how we go to war. We have changed. The AR is no longer a strategic reserve but is an operational reserve. The Army faces several challenges in equipment, compatibility, modernization and resources. The AR

recognizes these challenges and is pursuing new strategies to mobilize, train and equip our force. The benefits of these new training and equipping strategy to the Army are many. Most notably, fully trained and equipped units and soldiers while reducing the need to cross-level personnel and equipment upon receipt of mobilization orders. These strategies also position the AR for transformation to the modular framework envisioned by the Army.

The AR benefits from NGREA and Congressional Adds which are key to modernization efforts. While these funds are helpful, more needs to be done to improve procurement levels for equipping the Army such that AR requirements can be met. The pressure on procurement accounts to fully fund ongoing operations and modularity conversions prevents the modernization of our CS and CSS forces. The AR continues to do its part in the GWOT and remains a key provider of land forces to the Regional Combatant Commanders (RCCs).

The GWOT increased the need for strategic responsiveness across the full spectrum of operations. To achieve these goals, CS and CSS forces resident in the AR must be modernized and recapitalized on a synchronized and complementary timeline with the combat forces. Significant reductions in the logistics footprint will not be attained unless key logistics enablers such as FMTV, HMMWV, MHE, and communications systems are procured in sufficient quantity to support the requirements. The AR is an accessible and integral full partner of the Army....it is in America's interest to provide American Soldiers the best and most modern equipment.

Future State: A Transformed Army Reserve



**Skilled Soldiers & Modern
Equipment ...**

... Trained & Ready ...

... To Go Anywhere

USAR

Table 1

Consolidated Major Item Inventory and Requirements

NOTE: This table provides a comprehensive list of selected major items of equipment. It provides the quantity on hand (QTY O/H) projected to be in the inventory at the beginning/end of the selected fiscal year (FY). It also provides the quantity required (QTY REQ) needed to meet the full wartime requirements of the Reserve component. In accordance with Title 10, the QTY REQ number provides the recommendations as to the quantity and type of equipment which should be in the inventory of each Reserve component. Unit cost values are in dollars.

Nomenclature	Equip No.	FY 2007 Unit Cost	Begin FY 2007 QTY O/H	Begin FY 2008 QTY O/H	Begin FY 2009 QTY O/H	End FY 2009 QTY O/H	End FY 2009 QTY REQ
ROTARY WING AIRCRAFT							
HELICOPTER, ATTACK AH-64D (APACHE)	H48918	30,000,000	0	21	24	24	24
HELICOPTER, CARGO CH-47D (CHINOOK)	H30517	31,500,000	43	43	52	52	52
HELICOPTER, UTILITY UH-60L/Q (BLACK HAWK)	H32361	4,900,000	16	16	16	16	8
FIXED WING AIRCRAFT							
AIRPLANE, CARGO, TRANSPORT, C-12R	A30062	3,068,422	14	14	14	14	0
AIRPLANE, CARGO, TRANSPORT, UC-35	Z95382	8,000,000	10	10	10	10	40
BRIDGE & VESSEL EQUIPMENT							
LOGISTIC SUPPORT VESSEL	V00426	26,748,800	2	2	2	2	3
LANDING CRAFT MECHANIZED, LCM-8	L36739	174,650	19	19	19	19	12
LANDING CRAFT UTILITY, LCU-1646	L36876	1,530,000	1	1	1	1	0
LANDING CRAFT UTILITY, LCU-2000	L36989	5,000,000	17	17	17	17	12
TUG, LARGE COASTAL & INLAND WATERWAY	T68330	12,500,000	2	2	2	2	2
INTERIOR BAY BRIDGE, FLOATING	K97376	62,910	165	165	165	165	212
RAMP BAY, FLOATING BRIDGE	R10527	70,575	74	86	86	86	86
RAMP LOADING VEHICLE	R11154	7,229	300	300	301	301	115
TRANSPORTER, FLOATING BRIDGE	X23277	102,218	10	10	10	10	7
MODULAR CAUSEWAY SYSTEM (MCS)	Z14597	2,500,000	0	0	0	0	0
BRIDGE ERECTION SET, FIXED BAILEY BRIDGE	C22058	43,944	0	0	0	0	1
BRIDGE ERECTION SET, FIXED MEDIUM GIRDER BRIDGE	C22126	488,354	6	6	6	6	9
BRIDGE, FIXED BAILEY	C23017	303,673	1	1	1	1	1
BRIDGE, FIXED MEDIUM GIRDER, 100FT	C22811	964,515	11	11	11	11	17
CHEMICAL DEFENSIVE EQUIPMENT							
ALARM, BIOLOGICAL AGENT, AUTOMATIC, M31	A48430	785,483	56	56	56	56	0
ALARM, CHEMICAL AGENT, AUTOMATIC, M8A1	A32355	8,432	4,825	4,825	4,815	4,815	305
MONITOR, CHEMICAL AGENT	C05701	7,500	4,081	4,081	4,077	4,077	5,934
COLLECTIVE PROTECTION EQUIPMENT, NBC, M20	C79000	18,183	227	279	287	287	270
DECONTAMINATING APPARATUS, POWER DRIVEN, LIGHTWEIGHT	D82404	23,121	1,145	1,173	1,315	1,387	1,129
DECONTAMINATING APPARATUS, SKID MOUNTED, MULTIPURPOSE	F81880	30,968	22	22	22	31	29
MASK, PROTECTIVE, COMBAT VEHICLE, M42	M18526	640	1,978	2,110	2,126	3,089	1,468
MASK, CHEMICAL-BIOLOGICAL, M40	M12418	202	200,683	204,554	206,982	207,201	46,296
MASK, CBR PROTECTIVE FIELD, M17A1	M11895	93	594	594	594	594	4,765
RADIAC SET, AN/PDR-75	R30925	2,978	884	884	876	876	1,339

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RADIAC SET, AN/UDR-13	R31061	631	2,557	2,756	2,764	2,764	9,219
RADIACMETER, IM-93A/UD	Q20935	73	7,320	7,320	7,320	7,320	852
SMOKE GENERATOR, M157	G51840	26,622	308	308	308	308	0
SMOKE GENERATOR, M3A3	J30492	8,500	24	24	24	24	0
SMOKE GENERATOR, M56	G58151	145,000	168	197	197	197	96
SMOKE GENERATOR, M58	G87229	410,000	26	26	28	28	28
MOUNTING KIT, SMOKE GENERATOR, M284	M17931	3,143	283	283	283	283	25
COMMUNICATIONS EQUIPMENT							
CENTRAL OFFICE COMMUNICATIONS, AN/TTC-39A(V)1	C41311	2,801,000	6	6	6	6	0
COMPUTER SET, DIGITAL, AN/UKY-128	Z26542	15,954	0	0	0	0	0
DATA TRANSFER DEVICE, AN/CYZ-10	D78555	1,899	8,645	9,096	11,599	16,459	21,687
DIGITAL FAX SET, LIGHTWEIGHT, AN/UXC-10	Z26923	15,000	0	0	0	0	2,032
RADAR SIGNAL DETECTION SET, AN/APR-39A(V)1	D03159	39,984	122	122	122	122	80
RADIO SET, AN/GRC-106	Q32756	18,602	411	411	411	411	2
RADIO SET, AN/GRC-193A	H35404	37,000	167	174	175	175	1,104
RADIO SET, AN/GRC-213	R30895	20,000	19	19	19	19	578
RADIO SET, AN/PRC-104A	R55200	12,500	304	304	304	304	338
RADIO SET, AN/VRC-90A (SINGARS)	R67908	13,178	6,631	7,168	7,251	7,251	1,864
RADIO SET, AN/VRC-91A (SINGARS)	R68010	23,249	1,469	1,469	1,469	1,469	329
RADIO SET, AN/VRC-92A (SINGARS)	R45407	21,238	783	871	876	876	541
RADIO SET, AN/VRC-119A (SINGARS)	R83005	10,117	1,721	1,821	1,885	2,392	1,146
RADIO SET, AN/VRC-87A (SINGARS)	R67160	12,109	344	344	344	344	8
RADIO SET, AN/VRC-88A (SINGARS)	R67194	12,519	3,053	3,130	3,131	3,131	827
RADIO SET, AN/VRC-89A (SINGARS)	R44863	22,822	1,788	1,822	1,837	1,837	855
RADIO TELETYPEWRITER SET, AN/GRC-122	Q90100	52,347	1	1	1	1	0
RADIO REPEATER SET, AN/TRC-138C	Z63463	0	0	0	0	0	30
RADIO REPEATER SET, AN/TRC-174	R39520	519,000	21	21	21	21	0
RADIO REPEATER SET, AN/TRC-174B	Z54228	0	0	0	0	0	30
RADIO TERMINAL SET, AN/TRC-173B	Z57406	0	0	0	0	0	35
RADIO TERMINAL SET, AN/TRC-170 (V)2	R92967	2,000,000	16	16	16	16	12
RADIO TERMINAL SET, AN/TRC-170 (V)3	R93035	1,000,000	28	28	28	28	23
RADIO TERMINAL SET, AN/TRC-175	R39588	640,000	14	14	14	14	0
SPEECH SECURITY EQUIPMENT, TSEC/KY-57	S01373	1,930	363	363	363	363	222
SPEECH SECURITY EQUIPMENT, TSEC/KY-58	S01441	3,063	283	283	290	290	101
TELEPHONE, DIGITAL NON-SECURE VOICE, TA-1035/U	T45408	2,459	2,423	2,423	2,423	2,423	0
TERMINAL, RADIO-TELEPHONE MOBILE SUBSCRIBER, AN/VRC-97	T55957	110,000	757	765	930	991	1,170
FACSIMILE, LIGHTWEIGHT DIGITAL, AN/UXC-7	L67964	21,972	1,367	1,419	1,419	1,419	321
ELECTRONIC TRANSFER KEYING DEVICE, KYK-13/TSEC	E98103	235	3,384	3,492	3,661	3,661	234
DIGITAL DATA GENERATOR, SG-1139/G	D37041	5,100	78	78	78	78	71

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NET CONTROL DEVICE, KYX-15/TSEC	N02758	2,300	2,471	2,618	2,675	2,675	77
SPECTRUM ANALYZER, AN/USM-489(V)1	S01416	12,917	6	22	22	22	54
CONSTRUCTION EQUIPMENT							
ASPHALT MIXING PLANT	M57048	1,254,600	5	5	5	5	6
COMPACTOR, HIGH SPEED, SELF-PROPELLED, CCE	E61618	135,186	49	49	49	49	53
CRANE, BARGE, 89 TO 250 TON	F36090	8,000,104	2	3	3	3	1
CRANE, WHEEL MOUNTED, 20 TON	F39378	162,393	5	5	5	5	6
CRANE, WHEEL MOUNTED, HYDRAULIC, LIGHT 7-1/2 TON	C36151	58,481	72	72	72	72	24
CRANE, WHEEL MOUNTED, HYDRAULIC, 25 TON, ALL TERRAIN, AT422T	C36586	226,341	130	130	130	130	77
CRANE, WHEEL MOUNTED, HYDRAULIC, ROUGH TERRAIN (RTCC)	C39398	450,194	115	115	115	115	33
CRANE-SHOVEL, CRAWLER MOUNTED, 50 TON	F40474	270,000	7	7	7	7	5
CRANE, TRUCK MOUNTED, HYDRAULIC, 25-TON, CCE	F43429	160,953	48	48	48	48	16
CRUSHING, SCREENING, & WASHING PLANT, 150 TPH	F49673	1,543,579	8	8	8	8	6
ROAD GRADER, MOTORIZED, CCE	G74783	67,724	220	220	221	222	137
ROAD GRADER, MOTORIZED	J74920	62,181	2	2	2	2	0
ROLLER, PNEUMATIC, SELF-PROPELLED, CCE	S11793	28,706	5	5	5	5	27
ROLLER, VIBRATING, TOWED	S10682	17,086	1	1	1	1	20
ROLLER, VIBRATORY, SELF-PROPELLED, CCE	S12916	45,183	20	20	20	20	7
SCOOP LOADER, CCE	L76321	75,450	43	43	43	43	77
SCOOP LOADER, 950BNS	L76556	58,890	151	151	151	151	46
SCRAPER, EARTH MOVING, SELF-PROPELLED, CCE	S56246	120,410	235	235	235	235	213
SPREADER LIFT FRT CON	U12203	4,490	121	121	121	121	31
TRACTOR, WHEELED, EXCAVATOR & FRONT LOADER	T34437	110,000	353	353	353	353	268
ELECTRICAL GENERATION							
GENERATOR SET, TRAILER MOUNTED, PU-798	G42170	13,000	297	300	308	320	454
GENERATOR SET, TRAILER MOUNTED, PU-406	J36383	20,810	186	186	187	187	17
GENERATOR SET, MEP-002A	J35813	8,332	1,276	1,295	1,295	1,295	86
GENERATOR SET, MEP-003A	J35825	13,635	466	466	466	466	29
GENERATOR SET, MEP-805A	G74575	21,998	177	216	221	225	188
GENERATOR SET, MEP-806A	G12034	25,073	195	195	195	195	137
GENERATOR SET, MEP-802A	G11966	8,145	1,737	1,778	1,785	1,785	2,531
GENERATOR SET, MEP-803A	G74711	6,979	699	725	725	725	782
GENERATOR SET, MEP-804A	G12170	16,160	245	262	262	262	284
GENERATOR SET, MEP-009A	J40158	49,440	5	5	5	5	0
GENERATOR SET, MEP-016A	J45699	4,491	389	389	389	389	92
GENERATOR SET, MEP-108A	J40150	19,204	1	1	1	1	6
GENERATOR SET, TRAILER MOUNTED, PU-803	G35851	28,521	141	141	153	158	215
GENERATOR SET, TRAILER MOUNTED, PU-802	G53778	19,080	151	157	167	192	593

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GENERATOR SET, TRAILER MOUNTED, PU-805	G78306	31,596	35	40	44	45	62
POWER PLANT, AN/MJQ-36	P28151	33,627	7	7	7	7	1
POWER PLANT, AN/MJQ-35	P28083	11,000	22	22	22	22	18
POWER PLANT, AN/MJQ-10	P27819	45,447	64	64	64	64	1
POWER PLANT, AN/MJQ-40	P42126	63,941	25	25	25	25	5
POWER PLANT, AN/MJQ-41	P42194	70,891	4	4	4	4	2
POWER PLANT, AN/NJQ-37	P42262	36,558	54	54	54	54	11
POWER SUPPLY, PP-6224/U	P40750	1,491	1,350	1,350	1,350	1,350	3,434
MEDICAL EQUIPMENT							
ANESTHESIA APPARATUS	A62773	19,530	151	151	151	151	8
COMBAT AUTOMATED SERVICE SUPPORT-MEDICAL (CASS-M) COMPUTER SYSTEM	C18514	5,000	1,939	1,939	1,939	1,939	748
DEFIBRILLATOR MONITOR RECORDER	D86072	18,941	434	437	463	463	308
MEDICAL EQUIPMENT SET, FIELD SICK CALL	M30156	12,047	93	103	122	141	115
MEDICAL EQUIPMENT SET, FIELD TRAUMA	M30499	28,733	112	120	127	146	108
MEDICAL MATERIEL SET, CENTRAL MATERIAL SERVICE, DEPMEDS	M08417	688,153	89	90	94	94	67
MEDICAL MATERIEL SET, INTERMEDIATE CARE WARD, DEPMEDS	M08599	193,842	237	239	267	267	224
MEDICAL MATERIEL SET, LABORATORY GENERAL, DEPMEDS	M72482	200,320	7	7	7	7	0
MEDICAL MATERIEL SET, OPERATING ROOM, DEPMEDS	M72936	497,155	91	92	96	96	67
MEDICAL MATERIEL SET, POST-OP/ICU WARD, DEPMEDS	M09576	319,383	166	167	172	172	88
MEDICAL MATERIEL SET, X-RAY, DEPMEDS	M72300	281,240	21	21	30	30	23
MEDICAL MATERIEL SET, X-RAY RADIOGRAPHIC, DEPMEDS	M86675	203,223	25	25	27	27	21
OPERATING AND TREATMENT UNIT, FIELD DENTAL	P19377	15,753	54	57	57	57	267
OSCILLOSCOPE, AN/USM-488	P30693	2,084	260	260	260	260	212
TENT, MEDICAL, EXTENDABLE, MODULAR (TEMPER)	T47745	22,181	411	413	465	465	439
TENT, SURGICAL, EXTENDABLE, MODULAR (TEMPER)	T47813	26,861	106	107	128	128	132
TRUCK, AMBULANCE, M996 (HMMWV)	T38707	49,357	9	9	11	11	10
TRUCK, AMBULANCE, M997 (HMMWV)	T38844	113,998	203	203	204	259	252
MISSILES							
JAVELIN ANTI-TANK MISSILE CONTROL LAUNCH UNIT	C60750	231,671	16	16	16	16	26
OTHER PROCUREMENT							
LASER INFRARED OBSERVATION SET, AN/GVS-5	L40063	4,879	34	34	28	28	0
MELIOS PVS-6 EYE SAFE LASER OBSERVATION	M74849	22,015	1	1	1	1	199
NIGHT SIGHT, ANTI-TANK SYSTEM, AN/VAS UAS-12	N04982	116,014	22	22	22	22	2
NIGHT VISION SIGHT, AN/UAS-11(V)1	N05050	68,000	5	5	5	5	0
NIGHT VISION DEVICE, AN/PVS-4 WMG (WEAPON)	N04732	8,535	4,354	4,816	4,922	4,922	2,849
NIGHT VISION GOGGLES, AN/PVS-7B	N05482	3,578	20,070	20,482	22,724	34,230	51,841

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NIGHT VISION GOGGLES, AN/PVS-5	N04456	4,300	5,242	5,987	6,021	6,021	143
NIGHT VISION SIGHT-TRACKER, INFRARED, AN/TAS-5 (DRAGON)	N23721	23,099	23	23	23	23	1
VIEWER INFRARED, AN/PAS-7	Y03104	16,779	26	26	26	26	0
NAVIGATION SYSTEM, PSN-11	N95862	2,051	9,545	9,566	9,566	9,566	1,305
BATH UNIT, PORTABLE, SH-63LP	B43663	8,186	38	38	38	38	110
BATTLE COMMAND SUSTAINMENT SUPPORT SYSTEM (BCS3)	C56827	56,688	40	44	48	48	47
CLEANER, STEAM PRESSURE JET, TRAILER MOUNTED	C32887	18,528	390	390	390	390	517
CONTAINER ASSEMBLY, REFRIGERATED, W/9K BTU REF UNIT	C84541	58,326	215	216	226	254	373
DIVING EQUIPMENT SET	D32927	55,753	0	0	0	0	0
FLOODLIGHT SET, TRAILER MOUNTED	F79334	4,489	165	165	165	165	1,096
FOOD SANITATION CENTER	S33399	33,865	559	668	716	716	627
LAUNDRY UNIT, TRAILER MOUNTED	L48315	54,944	197	197	197	197	32
MINE DETECTING SET MINE, AN/PSS-11	G02341	2,944	1,904	1,910	1,910	1,910	1,710
REFRIGERATION UNIT, 10000 BTU	R61428	10,564	344	394	394	394	250
PRINTING PLANT, SPECIAL WARFARE, TRANSPORTABLE, LIGHT WT	P61665	283,221	11	11	11	11	11
PROCESSING MACHINE RAD FILM TABLE TOP	P98514	11,997	50	50	55	55	44
SHELTER, TACTICAL EXPANDABLE	S01359	62,143	221	221	221	221	166
PETROLEUM EQUIPMENT							
FUEL SYSTEM SUPPLY POINT	J04717	30,213	276	276	276	276	76
FORWARD AREA REFUELING EQUIPMENT (FARE)	H94824	9,093	93	93	93	93	60
LABORATORY, PETROLEUM SEMITRAILER MOUNTED	L33800	650,000	13	13	13	13	11
PUMPING ASSEMBLY, FLAMMABLE LIQUID, 350 GPM	P97119	26,244	149	149	149	149	301
PUMP, CENTRIFUGE, 125 GPM	P92030	2,267	633	639	639	639	10
TANK ASSEMBLY, FABRIC COLLAPSIBLE, 20000 GAL PETROLEUM	T12620	6,065	148	148	148	148	28
TANK ASSEMBLY, FABRIC COLLAPSIBLE, 10000 GAL PETROLEUM	V12552	6,990	303	303	303	303	214
TERMINAL, TACTICAL PETROLEUM, MARINE	T56041	1,400,873	0	0	0	0	7
TESTING KIT, AVIATION FUEL CONTAMINATION	T05741	4,565	209	209	209	209	235
FILTER-SEPARATOR LIQUID FUEL, DL13217E9320	H52087	4,041	1,212	1,212	1,212	1,212	242
REPAIR EQUIPMENT							
ELECTRONIC SHOP, AN/ASM-189	H01855	169,817	60	60	60	60	88
ELECTRONIC SHOP, AN/ASM-146	H01907	124,000	86	86	86	86	48
ELECTRONIC SHOP, AN/ASM-147	H01912	82,000	34	34	34	34	20
INSTUMENT REPAIR SHOP, M185A3	K90188	94,021	5	5	5	5	0
SHOP EQUIPMENT, AUTO MAINTENANCE & REPAIR	T24660	120,827	41	41	41	41	46
SHOP EQUIPMENT, AUTO MAINTENANCE & REPAIR	T25756	124,948	12	12	12	12	10
SHOP EQUIPMENT, AUTO MAINTENANCE & REPAIR	T25619	58,235	37	37	37	37	40

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SHOP EQUIPMENT, MAINTENANCE, DAVEY MODEL CMU-5	T10138	16,361	10	25	25	25	28
TEST SET, RADIO, AN/GRM-114	T87468	11,822	122	122	122	123	54
TEST SET, ELECTRONIC SYSTEMS, DIRECT SUPPORT (DESETS)	T52849	561,312	4	4	4	4	0
TOOL OUTFIT, HYDRAULIC SYSTEM TEST & REPAIR	T30377	83,000	51	51	49	49	231
WELDING SHOP, TRAILER MOUNTED	W48391	43,250	174	174	174	174	64
WELDING SHOP TRAILER MOUNTED	Y48255	7,383	1	1	1	1	0
WELDING SHOP, TRAILER MOUNTED	Y48323	9,603	5	5	5	5	118
TACTICAL VEHICLES							
TRUCK, UTILITY, M998 (HMMWV)	T61494	36,076	9,017	9,329	9,595	10,789	15,002
TRUCK, UTILITY, M1025 (HMMWV)	T92242	74,969	1,504	1,504	1,504	1,504	503
TRUCK, UTILITY, M1037 (HMMWV)	T07543	36,932	364	364	364	364	19
TRUCK, UTILITY, M1038 (HMMWV)	T61562	36,672	322	322	353	431	508
TRUCK, UTILITY, M1097 (HMMWV)	T07679	61,665	1,175	1,529	1,917	1,969	404
TRUCK, CARGO, LMTV, M1078	T60081	176,428	1,174	1,271	1,508	1,660	3,595
TRUCK, CARGO, LMTV, M1078, WITH WINCH	T60149	115,639	217	242	282	326	768
TRUCK, CARGO, LMTV, M1081	T41995	101,742	23	23	23	23	24
TRUCK, VAN, LMTV, M1079	T93484	162,060	55	80	96	99	364
TRUCK, CARGO, MTV, M1083	T61908	128,076	353	372	594	1,102	2,826
TRUCK, CARGO, MTV, M1085	T61704	118,791	1	1	1	1	10
TRUCK DUMP, MTV, M1090	T64911	141,557	71	71	73	133	679
TRUCK, TRACTOR, MTV, M1088	T61239	142,132	389	397	400	450	3,327
TRUCK, WRECKER, MTV, M1089	T94709	331,680	49	77	99	105	276
TRUCK, CARGO, W/MED CRANE, M985 (HEMTT)	T39586	272,033	75	75	75	75	164
TRUCK, CARGO, 10 TON, W/LT CRANE (HEMTT)	T59278	251,388	64	64	64	64	13
TRUCK, CARGO, W/LT CRANE (HEMTT)	T39518	260,574	13	13	13	13	9
TRUCK, WRECKER, M948E1 (HEMTT)	T63093	379,000	322	322	322	352	235
TRUCK, TANKER, FUEL, 2500G (HEMTT)	T87243	268,440	124	129	166	166	144
TRUCK, TANKER, FUEL, 2500G (HEMTT)	T58161	278,409	119	119	123	123	39
TRUCK, COMMON BRIDGE TRANSPORTER (CBT), M1977	T91308	226,150	260	260	260	304	392
TRUCK, TRACTOR, M878	T60353	96,051	57	60	108	108	180
TRUCK, TRACTOR, LINE HAUL, M915	T61103	162,968	1,912	1,912	1,912	1,912	2,246
TRUCK, TRACTOR, LIGHT EQUIP TRANSPORTER, M916	T91656	164,760	513	513	513	513	1,007
TRUCK, TRACTOR, MEDIUM EQUIP TRANSPORTER, M920	T61171	74,288	278	278	278	278	45
TRUCK, TRACTOR, HEAVY EQUIP TRANSPORTER, M1070	T59048	256,704	362	362	362	362	200
TRUCK, TRACTOR, HEAVY EQUIP TRANSPORTER, M911	T61035	75,416	5	5	5	5	1
TRUCK, TANK, FUEL SERVICING, 2-1/2 TON, M49A2C	X57271	98,162	2	2	2	2	1
TRANSPORTER, PALLETIZED LOAD SYSTEM (PLS), M1074	T41067	288,015	111	111	111	111	0

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Consolidated Major Item Inventory and Requirements

Nomenclature	Equip No.	FY 2007 Unit Cost	Begin FY 2007 QTY O/H	Begin FY 2008 QTY O/H	Begin FY 2009 QTY O/H	End FY 2009 QTY O/H	End FY 2009 QTY REQ
TRANSPORTER, PALLETIZED LOAD SYSTEM (PLS), M1075	T40999	276,410	657	657	658	658	1,083
CARGO BED, DEMOUNTABLE, PLS, M1077A1	B83002	16,633	1,950	1,950	2,148	2,284	2,284
TRAILER, PALLETIZED LOAD SYSTEM (PLS), M1076	T93761	46,731	779	780	796	817	1,338
TRUCK, FORKLIFT, ROUGH TERRAIN, M-10A	T49119	75,923	415	415	415	415	72
TRUCK, FORKLIFT, ROUGH TERRAIN, DV43	T48941	159,138	108	108	108	108	88
TRUCK, FORKLIFT, ALL TERRAIN LIFTER, ARMY SYSTEM (ATLAS)	T73347	100,199	554	554	577	622	591
TRUCK, FORKLIFT, ROUGH TERRAIN	T48944	72,370	420	420	420	420	197
TRUCK, FORKLIFT, ROUGH TERRAIN	T49255	47,692	659	659	659	659	687
TRUCK, TACTICAL FIRE FIGHTING	H56391	151,000	58	66	66	66	66
SEMITRAILER VAN, REPAIR PARTS STORAGE	S74832	32,952	52	52	52	52	54
SEMITRAILER, BREAKBULK/CONTAINER TRANSPORTER	S70159	75,000	2,557	2,557	2,557	2,557	1,560
SEMITRAILER, FUEL TANK, M131A5C	S72983	15,064	1	1	1	1	103
SEMITRAILER, BREAKBULK/CONTAINER TRANSPORTER, M871	S70027	26,500	1,250	1,250	1,254	1,255	712
SEMITRAILER, FUEL TANK, M967	S10059	77,550	1,188	1,188	1,188	1,188	1,080
SEMITRAILER, FUEL TANK, M1062	S73119	27,774	509	509	509	509	420
SEMITRAILER, FUEL TANK, M969	S73372	97,413	421	421	436	436	239
SEMITRAILER VAN, CARGO, M128A1C	S74079	7,111	17	17	17	17	3
SEMITRAILER VAN, ELECTRONIC, M373A2	S74353	24,125	22	22	22	22	0
SEMITRAILER VAN, SUPPLY, M129A1C	S75175	84,466	376	376	376	376	47
TRAILER, BOLSTER, GENERAL PURPOSE, 4 TON, M796	W94536	9,618	474	474	474	474	169
TRAILER, CARGO, 3/4 TON, M101	W95537	3,894	2,026	2,029	2,033	2,033	612
TRAILER, FLAT BED, HEMAT, M989	T45465	34,714	81	81	81	86	107
TRACKED & WHEELED COMBAT SYSTEMS							
RECOVERY VEHICLE, MEDIUM, FULL-TRACKED, M88A1	R50681	1,210,755	31	31	31	52	28
TRACTOR, FULL TRACKED, CAT D7F DV29	W76816	205,000	308	308	308	308	258
TRACTOR, FULL TRACKED, CAT D7F DV29	W83529	245,275	282	282	282	282	204
TRACTOR, FULL TRACKED, CAT D8K-8S-8, CCE	W88699	197,322	1	1	1	1	0
WATER EQUIPMENT							
DISTRIBUTOR, WATER TANK TYPE, 6000 GL	D28318	30,289	81	81	81	81	148
HYPOCHLORINATION UNIT, WATER PURIFICATION, A506	K60988	14,342	83	83	83	83	14
FORWARD AREA WATER POINT SUPPLY SYSTEM	F42612	19,484	75	75	75	75	59
TACTICAL WATER DISTRIBUTION EQUIPMENT SET	T09094	660,000	32	32	32	32	7
TANK, FABRIC COLLAPSIBLE, WATER, 3000 GAL	T19033	2,377	1,658	1,658	1,658	1,658	14
TANK, FABRIC COLLAPSIBLE, WATER, 3000 GAL	V15018	1,762	15	15	15	15	32
TANK, LIQUID DISPENSING UNIT, TRAILER MOUNTED	V19950	2,000	500	500	500	500	710
WATER STORAGE/DISTRIBUTION SET, 800,000 GALLON	W37311	200,508	21	21	21	21	0

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Table 1

Consolidated Major Item Inventory and Requirements

Nomenclature	Equip No.	FY 2007 Unit Cost	Begin FY 2007 QTY O/H	Begin FY 2008 QTY O/H	Begin FY 2009 QTY O/H	End FY 2009 QTY O/H	End FY 2009 QTY REQ
WATER PURIFICATION UNIT, REVERSE OSMOSIS 3000 GPH	W47225	748,000	118	118	118	118	60
DRUM, FABRIC COLLAPSIBLE, WATER 500 GAL	D69050	2,088	308	308	308	308	12
PUMPING ASSEMBLY, TACTICAL WATER DISTRIBUTION, 600GPM	P97369	27,426	208	208	208	208	42
WEAPONS							
MACHINE GUN, 5.56MM, M249	M09009	2,653	10,838	10,854	10,762	10,762	7,908
MACHINE GUN, 7.62MM, M240B	M92841	6,000	648	648	684	684	129
MACHINE GUN, GRENADE, 40MM, MK19 MODIII	M92362	15,320	1,805	1,805	1,805	1,805	2,200
RIFLE, 5.56MM, M16A2	R95035	449	115,788	115,809	115,809	115,809	101,546
RIFLE, 5.56MM, M16A4	R97175	587	3,615	3,615	3,679	6,851	3,824
CARBINE, 5.56MM, M4	R97234	587	9,404	9,713	15,934	24,696	12,226

USAR Average Age of Equipment

Table 2

NOTE: This table provides the average age of selected major items of equipment. The average age provides a projected average age of the fleet at the start of FY 2006.

Nomenclature	Equip No.	Average Age	Remarks
ROTARY WING AIRCRAFT			
HELICOPTER, ATTACK AH-64D (APACHE)	H48918	17	
HELICOPTER, CARGO CH-47D (CHINOOK)	H30517	15	
HELICOPTER, UTILITY UH-60L/Q (BLACK HAWK)	H32361	10	
FIXED WING AIRCRAFT			
AIRPLANE, CARGO, TRANSPORT, C-12R	A30062	10	
AIRPLANE, CARGO, TRANSPORT, UC-35	Z95382	7	
BRIDGE & VESSEL EQUIPMENT			
RAMP LOADING VEHICLE	R11154	12	
CHEMICAL DEFENSIVE EQUIPMENT			
SMOKE GENERATOR, M3A3	J30492	42	
CONSTRUCTION EQUIPMENT			
ASPHALT MIXING PLANT	M57048	10	
CRANE, WHEEL MOUNTED, HYDRAULIC, LIGHT 7-1/2 TON	C36151	16	
CRANE, WHEEL MOUNTED, HYDRAULIC, 25 TON, ALL TERRAIN, AT422T	C36586	6	
CRANE, WHEEL MOUNTED, HYDRAULIC, ROUGH TERRAIN (RTCC)	C39398	16	
CRANE, TRUCK MOUNTED, HYDRAULIC, 25-TON, CCE	F43429	30	
ROLLER, PNEUMATIC, SELF-PROPELLED, CCE	S11793	27	
ROLLER, VIBRATING, TOWED	S10682	20	
ROLLER, VIBRATORY, SELF-PROPELLED, CCE	S12916	27	
SCOOP LOADER, CCE	L76321	26	
SCOOP LOADER, 950BNS	L76556	21	
SCRAPER, EARTH MOVING, SELF-PROPELLED, CCE	S56246	20	
ELECTRICAL GENERATION			
GENERATOR SET, TRAILER MOUNTED, PU-406	J36383	22	
GENERATOR SET, TRAILER MOUNTED, PU-802	G53778	8	
MEDICAL EQUIPMENT			
TRUCK, AMBULANCE, M996 (HMMWV)	T38707	17	
TRUCK, AMBULANCE, M997 (HMMWV)	T38844	17	
OTHER PROCUREMENT			
FLOODLIGHT SET, TRAILER MOUNTED	F79334	19	
LAUNDRY UNIT, TRAILER MOUNTED	L48315	37	
REPAIR EQUIPMENT			
INSTUMENT REPAIR SHOP, M185A3	K90188	39	

USAR

Average Age of Equipment

Table 2

Nomenclature	Equip No.	Average Age	Remarks
TACTICAL VEHICLES			
TRUCK, UTILITY, M998 (HMMWV)	T61494	11	
TRUCK, UTILITY, M1025 (HMMWV)	T92242	19	
TRUCK, UTILITY, M1037 (HMMWV)	T07543	15	
TRUCK, UTILITY, M1038 (HMMWV)	T61562	16	
TRUCK, UTILITY, M1097 (HMMWV)	T07679	6	
TRUCK, UTILITY, TOW CARRIER, 1 1/4 TON (HMMWV)	T05096	19	
TRUCK, CARGO, LMTV, M1078	T60081	9	
TRUCK, CARGO, LMTV, M1078, WITH WINCH	T60149	7	
TRUCK, CARGO, LMTV, M1081	T41995	9	
TRUCK, VAN, LMTV, M1079	T93484	4	
TRUCK, CARGO, MTV, M1083	T61908	6	
TRUCK, CARGO, MTV, M1085	T61704	4	
TRUCK DUMP, MTV, M1090	T64911	8	
TRUCK, TRACTOR, MTV, M1088	T61239	5	
TRUCK, WRECKER, MTV, M1089	T94709	6	
TRUCK, CARGO, W/MED CRANE, M985 (HEMTT)	T39586	17	
TRUCK, CARGO, 10 TON, W/LT CRANE (HEMTT)	T59278	17	
TRUCK, CARGO, W/LT CRANE (HEMTT)	T39518	18	
TRUCK, WRECKER, M948E1 (HEMTT)	T63093	14	
TRUCK, TANKER, FUEL, 2500G (HEMTT)	T87243	15	
TRUCK, TANKER, FUEL, 2500G (HEMTT)	T58161	15	
TRUCK, BOLSTER, 5 TON, 6X6	X39187	35	
TRUCK, CARGO 1 1/4 TON, CUCV	T59346	20	
TRUCK, CARGO, 1 1/4 TON, M1008, CUCV	T59482	20	
TRUCK, CARGO, 1 1/4 TON, M1028, CUCV	T59414	20	
TRUCK, CARGO, 2 1/2 TON, 6X6	X40009	50	
TRUCK, CARGO, 2 1/2 TON, 6X6	X40146	49	
TRUCK, CARGO, 2 1/2 TON, M35A2C	X40077	33	
TRUCK, CARGO, 2 1/2 TON, M36A2	X40283	33	
TRUCK, CARGO, 5 TON 6X6	X40831	34	
TRUCK, CARGO, 5 TON 6X6	X40968	35	
TRUCK, CARGO, 5 TON 6X6	X41105	20	
TRUCK, CARGO, 5 TON 6X6	X41232	38	
TRUCK, CARGO, DROP SIDE, 5 TON	X40794	30	
TRUCK, CARGO, DROP SIDE, 5 TON	X40931	19	
TRUCK, CARGO, M35A2C	X40214	10	
TRUCK, CARGO, M36A2	X40420	36	

USAR

Average Age of Equipment

Table 2

Nomenclature	Equip No.	Average Age	Remarks
TRUCK, DUMP, 20 TON, 12 CY	X44403	30	
TRUCK, DUMP, 5 TON 6X6 W/E	X43708	21	
TRUCK, DUMP, 5 TON 6X6	X43845	37	
TRUCK, COMMON BRIDGE TRANSPORTER (CBT), M1977	T91308	9	
TRUCK, TRACTOR, M878	T60353	25	
TRUCK, TRACTOR, LINE HAUL, M915	T61103	23	
TRUCK, TRACTOR, 5 TON, 6X6	X59326	24	
TRUCK, TRACTOR, 5 TON, 6X6	X59463	37	
TRUCK, TRACTOR, WRECKER, 5 TON	X60696	34	
TRUCK, TRACTOR, 2-1/2 TON	X59052	37	
TRUCK, TRACTOR, LIGHT EQUIP TRANSPORTER, M916	T91656	14	
TRUCK, TRACTOR, MEDIUM EQUIP TRANSPORTER, M920	T61171	25	
TRUCK, TRACTOR, HEAVY EQUIP TRANSPORTER, M1070	T59048	11	
TRUCK, TRACTOR, HEAVY EQUIP TRANSPORTER, M911	T61035	27	
TRUCK, TANK, FUEL SERVICING, 2-1/2 TON, M49A2C	X57271	33	
TRUCK, UTILITY, 1/4 TON, 4X4	X60833	33	
TRUCK, UTILITY, 3/4 TON, M1009	T05028	20	
TRUCK, VAN, EXPANSIBLE, 5 TON, 6X6	X62237	21	
TRUCK, VAN, SHOP, 2 1/2 TON	X62340	36	
TRUCK, VAN, SHOP, M109A3	X62477	25	
TRUCK, WATER, 1000 GAL, M50A3	X58367	36	
TRUCK, WRECKER, 5 TON	X63299	30	
TRANSPORTER, PALLETIZED LOAD SYSTEM (PLS), M1074	T41067	12	
TRANSPORTER, PALLETIZED LOAD SYSTEM (PLS), M1075	T40999	10	
CARGO BED, DEMOUNTABLE, PLS, M1077A1	B83002	11	
TRAILER, PALLETIZED LOAD SYSTEM (PLS), M1076	T93761	10	
TRUCK, FORKLIFT, ROUGH TERRAIN, M-10A	T49119	22	
TRUCK, FORKLIFT, ROUGH TERRAIN, DV43	T48941	20	
TRUCK, FORKLIFT, ALL TERRAIN LIFTER, ARMY SYSTEM (ATLAS)	T73347	4	
TRUCK, FORKLIFT, ROUGH TERRAIN	T48944	14	
TRUCK, FORKLIFT, ROUGH TERRAIN	T49255	23	
TRUCK, TACTICAL FIRE FIGHTING	H56391	16	

USAR

Average Age of Equipment

Table 2

Nomenclature	Equip No.	Average Age	Remarks
SEMITRAILER VAN, REPAIR PARTS STORAGE	S74832	32	
SEMITRAILER, BREAKBULK/CONTAINER TRANSPORTER	S70159	23	
SEMITRAILER, FUEL TANK, M131A5C	S72983	38	
SEMITRAILER, BREAKBULK/CONTAINER TRANSPORTER, M871	S70027	12	
SEMITRAILER, FUEL TANK, M967	S10059	19	
SEMITRAILER, FUEL TANK, M1062	S73119	15	
SEMITRAILER, FUEL TANK, M969	S73372	15	
SEMITRAILER VAN, CARGO, M128A1C	S74079	37	
SEMITRAILER VAN, ELECTRONIC, M373A2	S74353	20	
SEMITRAILER VAN, SUPPLY, M129A1C	S75175	16	
TRAILER, BOLSTER, GENERAL PURPOSE, 4 TON, M796	W94536	33	
TRAILER, FLAT BED, HEMAT, M989	T45465	12	
TRACKED & WHEELED COMBAT SYSTEMS			
RECOVERY VEHICLE, MEDIUM, FULL-TRACKED, M88A1	R50681	29	
WATER EQUIPMENT			
DISTRIBUTOR, WATER TANK TYPE, 6000 GL	D28318	15	

USAR
Service Procurement Program - Reserve (P-1R)

Table 3

NOTE: This table identifies the dollar value of equipment programmed to be procured with Service procurement funds as identified in the P-1R exhibit of the FY 2007 President's Budget Submission. All values are costs in dollars, and ammunition procurements have been excluded. Deliveries of procured equipment normally take one to two years before they arrive in the inventory; e.g., items procured in FY 2007 would be expected to arrive in RC inventories in FY 2008 or FY 2009.

Nomenclature	FY 2007	FY 2008	FY 2009	Remarks
MODIFICATION OF AIRCRAFT				
CH-47 CARGO HELICOPTER MODS	61,695,000	13,955,000		
AIRBORNE AVIONICS	2,238,000	3,682,000	2,464,000	
GATM ROLLUP	900,000	4,800,000		
WEAPONS AND OTHER COMBAT VEHICLES				
M240 MEDIUM MACHINE GUN (7.62MM)	5,630,000	5,651,000	10,449,000	
M249 SAW MACHINE GUN (5.56MM)	10,534,000	10,521,000	15,524,000	
M4 CARBINE	121,000			
TACTICAL AND SUPPORT VEHICLES				
SEMITRAILERS, TANKERS	179,000	33,000	364,000	
HI MOB MULTI-PURP WHLD VEH (HMMWV)	11,540,000	12,393,000	12,859,000	
FAMILY OF MEDIUM TACTICAL VEH (FMTV)	33,682,000	87,487,000	136,162,000	
FIRETRUCKS & ASSOCIATED FIREFIGHTING EQUIP	382,000	241,000	142,000	
FAMILY OF HEAVY TACTICAL VEHICLES (FHTV)	27,875,000	33,192,000	66,443,000	
TRUCK, TRACTOR, LINE HAUL, M915/M916	9,052,000	13,660,000	744,000	
HVY EXPANDED MOBILE TACTICAL TRUCK EXT SERV	3,378,000	4,346,000	4,254,000	
COMMUNICATIONS AND ELECTRONICS EQUIPMENT				
NAVSTAR GLOBAL POSITIONING SYSTEM (SPACE)	3,612,000	3,942,000	3,088,000	
BRIDGE TO FUTURE NETWORKS	39,537,000	58,752,000	12,782,000	
COMMS-ELEC EQUIP FIELDING	1,066,000	1,068,000	2,000,000	
MEDICAL COMM FOR CBT CASUALTY CARE (MC4)	1,120,000	368,000	51,000	
TSEC - ARMY KEY MGT SYS (AKMS)	1,282,000	1,331,000	127,000	
INFORMATION SYSTEM SECURITY PROGRAM-ISSP	3,050,000	1,676,000	2,951,000	
PROPHET GROUND (MIP)	1,286,000	1,814,000	1,754,000	
DIGITAL TOPOGRAPHIC SPT SYS (DTSS) (MIP)	410,000	7,253,000	148,000	
CI HUMINT INFO MANAGEMENT SYSTEM (CHIMS) MIP	249,000	397,000	22,557,000	
NIGHT VISION DEVICES	13,056,000	13,503,000	14,901,000	
AIR & MSL DEFENSE PLANNING & CONTROL SYS	4,223,000	191,000	502,000	
JOINT NETWORK MANAGEMENT SYSTEM (JNMS)	696,000	53,000	2,137,000	

USAR
Service Procurement Program - Reserve (P-1R)

Table 3

Nomenclature	FY 2007	FY 2008	FY 2009	Remarks
ELECT EQUIP - SUPPORT - ITEMS UNDER \$5M (SSE)	233,000	4,281,000	4,349,000	
OTHER SUPPORT EQUIPMENT				
TACTICAL BRIDGING	53,376,000	24,260,000	1,041,000	
TACTICAL BRIDGE, FLOAT-RIBBON	16,424,000	36,598,000	5,474,000	
HANDHELD STANDOFF MINEFIELD DETECTION SYS-HST	10,756,000	5,682,000	2,250,000	
GRND STANDOFF MINE DETECTION SYSTEM	40,324,000	59,101,000	85,561,000	
HEATERS AND ECU'S	5,096,000	5,103,000	12,000	
FIELD FEEDING EQUIPMENT	1,092,000	1,063,000	1,787,000	
CARGO AERIAL DELIVERY PROGRAM			586,000	
QUALITY SURVEILLANCE EQUIPMENT			1,274,000	
DISTRIBUTION SYSTEMS, PETROLEUM & WATER	319,000	478,000	655,000	
WATER PURIFICATION SYSTEMS	140,000	11,978,000	12,142,000	
COMBAT SUPPORT MEDICAL	307,000	12,200,000	36,426,000	
SHOP EQ CONTACT MAINTENANCE TRK MTD (MYP)	784,000	845,000	856,000	
WELDING SHOP, TRAILER MTD	44,000	76,000	81,000	
ITEMS LESS THAN \$5M (MAINT EQ)		289,000	285,000	
SCRAPERS, EARTHMOVING	15,000	9,928,000	10,147,000	
MISSION MODULES - ENGINEERING	173,000	100,000	687,000	
COMPACTOR		2,437,000	5,656,000	
LOADERS	6,186,000	6,957,000	7,319,000	
HYDRAULIC EXCAVATOR	2,475,000	1,482,000	4,201,000	
PLANT, ASPHALT MIXING			75,000	
HIGH MOBILITY ENGINEER EXCAVATOR (HMEE)	567,000	400,000	399,000	
CONST EQUIP ESP	4,776,000	658,000	3,694,000	
ITEMS LESS THAN \$5M (CONST EQUIP)	2,818,000	2,051,000	2,624,000	
GENERATORS AND ASSOCIATED EQUIP	6,125,000	6,830,000	52,052,000	
ROUGH TERRAIN CONTAINER HANDLER (RTCH)		10,120,000	7,500,000	
ALL TERRAIN LIFTING ARMY SYSTEM	3,026,000	6,303,000	3,828,000	
TOTAL	\$391,849,000	\$489,529,000	\$563,364,000	

National Guard and Reserve Equipment Appropriation (NGREA) Procurements

NOTE: This table identifies the dollar value of equipment originally programmed to be procured with the National Guard and Reserve Equipment Appropriation (NGREA). These funds are available for a three-year period from the year of appropriation. Deliveries of procured equipment normally take one to two years from date of procurement before they arrive in the inventory; e.g., items procured in FY 2007 would be expected to arrive in RC inventories in FY 2008 or FY 2009. All values are costs in dollars.

Nomenclature	FY 2004	FY 2005	FY 2006	Remarks
FAMILY OF MEDIUM TACTICAL VEHICLES (MTV)	7,016,009		14,430,430	
FAMILY OF LIGHT MEDIUM TACTICAL VEHICLES (LMTV)	6,804,000			
ROUGH TERRAIN CARGO HANDLER (RTCH)	4,950,000			
C4E DATA PACKAGES	4,885,656			
PHOENIX TERMINAL	4,000,000			
NIGHT VISION IMAGE INTENSIFICATION SYSTEMS	1,789,635			
HIGH MOBILITY MULTIPURPOSE WHEELED VEHICLE (HMMWV), HEAVY VARIANT, M1152	1,550,200			
M915A4 TRUCK MODERNIZATION	561,200			
NEAR VERTICAL INCIDENCE SKYWAVE ANTENNA FOR IHFR	424,800			
TRUCK, TRACTOR LINE HAUL, M915A3	8,445,600	5,085,000		
MOVEMENT TRACKING SYSTEM (MTS)	2,424,000	2,520,000		
M4 CARBINE RIFLE, 5.56MM	1,815,000	3,275,300	212,295	
HIGH FREQUENCY RADIOS		8,131,386		
SQUAD AUTOMATIC WEAPON, M249		4,574,400		
MULTI-BAND SUPER HIGH FREQUENCY TERMINAL		4,400,000	8,800,000	
HANDHELD STANDOFF MINE DETECTION SYSTEM, AN/PSS-14		3,920,000		
AN/PVS-14 MONOCULAR NVG		3,607,000		
M249 MACHINE GUN, LIGHT, 5.56MM		3,141,160		
M249 MACHINE GUN, HEAVY, 5.56MM		3,125,840		
DEFENSE ADVANCED GLOBAL POSITIONING SYSTEM (GPS) RECEIVER		2,872,800	337,200	
SEMITRAILER, BREAKBULK, 22.5 TON, M871A3		2,772,000		
NIGHT VISION DEVICES		2,426,738		
LASER MARKSMANSHIP TRAINING SYSTEM		1,000,000		
GENERATOR SET 10KW, 60HZ, MEP803A		599,000		
CANCELLED 1997 APPROPRIATION REPAYMENT		364,376		
M1075 TRUCK CARGO			25,870,000	
BASE BAND NODE			14,397,000	

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Table 4

National Guard and Reserve Equipment Appropriation (NGREA) Procurements

Nomenclature	FY 2004	FY 2005	FY 2006	Remarks
M872A3 SEMITRAILER, FLATBED			10,098,000	
ROUGH TERRIAN CARGO HANDLER			8,000,000	
M915A3 TRACTOR			7,787,687	
ALL TERRAIN LIFTER ARMY SYSTEM			6,720,000	
M917A2 DUMP TRUCK			5,163,500	
AIR TRAFFIC NAVIGATION, INTEGRATION COORDINATION SYSTEM			5,000,000	
M916A3 TRACTOR			4,600,000	
CONTAINER HANDLING UNIT			3,953,088	
HEMTT BASED WATER TENDER			3,825,000	
TACTICAL AIRSPACE INFORMATION SYSTEM			2,350,000	
M1076 PALLETIZED LOAD SYSTEM TRAILER			2,200,464	
M1095/M1082 TRAILER CARGO, FMTV			1,557,225	
GENERATOR POWER UNIT 15KW			1,357,227	
ALARM, CHEMICAL AGENT, AUTOMATIC, M22			950,000	
IMPROVED CHEMICAL AGENT MONITOR			675,000	
MAINTENANCE SUPPORT DEVICE/ICE			543,000	
5KW GENERATOR SKID-MTD			213,200	
3KW GENERATOR SKID-MTD			184,000	
COUNTER INTEL/HUMAN INTEL MANAGEMENT SYSTEM - CHIMS			132,694	
POWER UNIT, PU-801A 15 KW			115,680	
COUNTER INTEL/HUMAN INTEL AUTOMATED TOOL SET			100,000	
INDIVIDUAL TACTICAL REPORTING TOOL - AN/PYQ-8(V)			24,310	
TOTAL	\$44,666,100	\$51,815,000	\$129,597,000	

Projected Equipment Transfer/Withdrawal Quantities

NOTE: This table portrays the planned equipment transfers (Active to Reserve), withdrawals (-), and decommissioning (-). Transferred equipment is commonly called "cascaded equipment," or equipment that is provided to the RC once the Active receives more modern equipment. Although this table highlights a three-year period, many Services will not know exact quantities of transfers or withdrawals until year of execution, due to the uncertainty of the procurement/delivery cycle of new equipment.

Nomenclature	Equip No.	FY 2007 Qty	FY 2008 Qty	FY 2009 Qty	Remarks
ROTARY WING AIRCRAFT					
HELICOPTER, ATTACK AH-64D (APACHE)	H48918	21			
BRIDGE & VESSEL EQUIPMENT					
RAMP LOADING VEHICLE	R11154		1		
CHEMICAL DEFENSIVE EQUIPMENT					
DECONTAMINATING APPARATUS, SKID MOUNTED, MULTIPURPOSE	F81880			2	
MASK, CHEMICAL-BIOLOGICAL, M40	M12418	11			
RADIAC SET, AN/UDR-13	R31061	172	8		
SMOKE GENERATOR, M56	G58151	29			
SMOKE GENERATOR, M58	G87229		2		
COMMUNICATIONS EQUIPMENT					
DATA TRANSFER DEVICE, AN/CYZ-10	D78555	276	1,236		
RADIO SET, AN/GRC-193A	H35404	7	1		
RADIO SET, AN/VRC-90A (SINCGARS)	R67908	6			
SPEECH SECURITY EQUIPMENT, TSEC/KY-58	S01441		7		
TERMINAL, RADIO-TELEPHONE MOBILE SUBSCRIBER, AN/VRC-97	T55957	8	165	61	
FACSIMILE, LIGHTWEIGHT DIGITAL, AN/UXC-7	L67964	52			
ELECTRONIC TRANSFER KEYING DEVICE, KYK-13/TSEC	E98103	108	169		
NET CONTROL DEVICE, KYX-15/TSEC	N02758	147	57		
SPECTRUM ANALYZER, AN/USM-489(V)1	S01416	16			
CONSTRUCTION EQUIPMENT					
ROAD GRADER, MOTORIZED, CCE	G74783		1		
ELECTRICAL GENERATION					
GENERATOR SET, TRAILER MOUNTED, PU-798	G42170		8	2	
GENERATOR SET, TRAILER MOUNTED, PU-406	J36383		1		
GENERATOR SET, MEP-002A	J35813	19			
GENERATOR SET, MEP-805A	G74575		5		
GENERATOR SET, MEP-802A	G11966	17	9		
GENERATOR SET, MEP-803A	G74711	1			
GENERATOR SET, MEP-804A	G12170	17			
GENERATOR SET, TRAILER MOUNTED, PU-802	G53778		10	2	
MEDICAL EQUIPMENT					
DEFIBRILLATOR MONITOR RECORDER	D86072		1		
OPERATING AND TREATMENT UNIT, FIELD DENTAL	P19377	3			

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Table 5

Projected Equipment Transfer/Withdrawal Quantities

Nomenclature	Equip No.	FY 2007 Qty	FY 2008 Qty	FY 2009 Qty	Remarks
TRUCK, AMBULANCE, M996 (HMMWV)	T38707		2		
OTHER PROCUREMENT					
NIGHT VISION DEVICE, AN/PVS-4 WMG (WEAPON)	N04732	458	110		
NIGHT VISION GOGGLES, AN/PVS-7B	N05482	8	1,188		
NIGHT VISION GOGGLES, AN/PVS-5	N04456	745	34		
NAVIGATION SYSTEM, PSN-11	N95862	21			
FOOD SANITATION CENTER	S33399	77			
MINE DETECTING SET MINE, AN/PSS-11	G02341	6			
PETROLEUM EQUIPMENT					
PUMP, CENTRIFUGE, 125 GPM	P92030	6			
REPAIR EQUIPMENT					
TEST SET, RADIO, AN/GRM-114	T87468			1	
TACTICAL VEHICLES					
TRUCK, UTILITY, M998 (HMMWV)	T61494	283			
TRUCK, UTILITY, M1038 (HMMWV)	T61562		26		
TRUCK, CARGO, LMTV, M1078	T60081	1	34		
TRUCK, CARGO, LMTV, M1078, WITH WINCH	T60149	12	4		
TRUCK, VAN, LMTV, M1079	T93484	4			
TRUCK, CARGO, MTV, M1083	T61908		55		
TRUCK DUMP, MTV, M1090	T64911			52	
TRUCK, TANKER, FUEL, 2500G (HEMTT)	T87243	5	5		
TRUCK, TANKER, FUEL, 2500G (HEMTT)	T58161		4		
TRUCK, TRACTOR, M878	T60353	3			
CARGO BED, DEMOUNTABLE, PLS, M1077A1	B83002		198	103	
TRAILER, PALLETIZED LOAD SYSTEM (PLS), M1076	T93761		4		
TRAILER, CARGO, 3/4 TON, M101	W95537	3	4		
TRAILER, FLAT BED, HEMAT, M989	T45465			5	
WEAPONS					
MACHINE GUN, 5.56MM, M249	M09009	4			
MACHINE GUN, GRENADE, 40MM, MK19 MODIII	M92362		2		
RIFLE, 5.56MM, M16A2	R95035	21			
CARBINE, 5.56MM, M4	R97234	52			

FY 2003 Planned vs Actual Procurements and Transfers

NOTE: This table compares what the Service planned to procure and transfer to the RC in FY 2003 with actual procurements and transfers. FY 2003 is selected as these are the most recent funds to expire. Since the procurement cycle is normally one to two years from funding to delivery, this table identifies only what has been delivered through the end of FY 2005. Procurement and NGREA columns reflect cost values in dollars.

Nomenclature	Equip No.	FY 2003 Transfers (# of items)		FY 2003 Procurements (\$s)		FY 2003 NGREA (\$s)	
		Plan	Actual	Plan	Actual	Plan	Actual
ALARM, CHEMICAL AGENT, M8A1	A32355	16	0				
REINFORCEMENT SET, MEDIUM GIRDER BRIDGE	C27309	1	0				
GRADER, ROAD, MOTORIZED	J74886	10	0				
MASK,CHEMICAL BIOLOGICAL M40	M12418	133	0				
ASPHALT PLANT	M57048	1	0				
VIBRATOR ROLLER	S12916	1	0				
TRACTOR,FT,LS,DED,MED	W83529	4	0				
MELIOS	M74849	5	0				
NIGHT VISION GOGGLES AN/PVS-7B	N05482	6,718	0				
RADIO SET AN/VRC-92A (SINCGARS)	R45407	328	0				
RADIO SET AN/VRC-88A (SINCGARS)	R67194	7	0				
RADIO SET AN/VRC-90A (SINCGARS)	R67908	4	0				
RADIO SET AN/VRC-91A (SINCGARS)	R68010	42	0				
RADIO SET AN/VRC-119A (SINCGARS)	R83005	2	0				
SEMITRAILER,22-1/2 TON M871	S70027	290	0				
SEMITRAILER,LOW BED,40 TON,6-WHEEL	S70594	69	0				
SEMITRAILER,HVY EQUIP TRANS SYS,70T (HETS)	S70859	1	0				
SEMITRAILER 5000 GAL POL	S73372	10	0				
TRUCK, UTILITY, CARGO/TROOP, M1097	T07679	295	0				
TRUCK, M985, CARGO (HEMTT)	T39586	10	0				
TRUCK,CARGO,TACTICAL, M985 (HEMTT)	T39654	14	0				
TRAILER, HEMAT, M989A1 (MLRS)	T45465	21	0				
TRUCK, TANKER, FUEL, 2500G (HEMTT)	T58161	4	0				
TRUCK,TRACTOR,HEAVY EQUIP TRANS SYS (HETS)	T59048	1	0				
TRUCK,CARGO,4X4,LMTV M1078	T60081	111	0				
TRUCK, UTILITY, CARGO/TROOP, M1038	T61562	11	0				
TRUCK,WRECKER,M948E1,8X8 (HEMTT)	T63093	12	0				
TRUCK,TANKER,FUEL,2500G (HEMTT)	T87243	4	0				
MONITOR CHEMICAL AGENT	C05701	2	0				
BRDG FIX HW AL 100 FT	C22811	1	0				
DIG D GEN SG-1139/G	D37041	7	0				
DECONTAMINATING APPARATUS	D82404	17	0				
DEFIBRILLATOR CARDIOS	D86072	1	0				

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Table 6

FY 2003 Planned vs Actual Procurements and Transfers

Nomenclature	Equip No.	FY 2003 Transfers (# of items)		FY 2003 Procurements (\$s)		FY 2003 NGREA (\$s)	
		Plan	Actual	Plan	Actual	Plan	Actual
ELEC KEY KYK-13/TSEC	E98103	3	0				
FORWARD AREA WATER POI	F42612	9	0				
GEN ST DSL MEP-802A	G11966	9	0				
GENERATOR SET DIESEL E	G53778	30	0				
HF RADIO SET: AN/GRC-1	H35404	14	0				
FWD AREA RFL EQUIP	H94824	2	0				
GEN ST DSL MEP 002A	J35813	23	0				
GEN ST MEP 016A	J45699	14	0				
LAUNDRY UNIT TRAILER M	L48315	34	0				
LTWT DIG FAC AN/UXC-7	L67964	2	0				
LDR GP BUCK CLRK 175B	L76321	3	0				
MMS CENTRAL MATERIAL	M08417	1	0				
MACH GUN 5.56MM M249	M09009	64	0				
MMS POST-OP/ICU DEP	M09576	1	0				
MASK FLD ABC-M17A1 S	M11895	246	0				
MASK CHEM BIO M40 SM	M12418	61	0				
MMS X-RAY DEPMEDS:	M72300	2	0				
MMS OPERATING ROOM	M72936	1	0				
MELIOS LASER AN/PVS-6	M74849	1	0				
NCD KYX-15/TSEC	N02758	7	0				
NIGHT VIS GL AN/PVS-5	N04456	16	0				
NI VI AN/PVS-4 W/IMG	N04732	3	0				
POWER PLANT ELEC TM: 3	P27819	1	0				
PWR SUPPLY PP-6224/U	P40750	3	0				
RADIO SET: AN/GRC-106	Q32756	1	0				
REPEATER SET RADIO: AN	R39520	1	0				
RIFLE 5.56MM M16A2	R95035	1,153	0				
SP ANL AN/USM-489(V)1	S01416	10	0				
FOOD SANITATION CENTE	S33399	16	0				
STLR LB 22-1/2T M871	S70027	14	0				
STLR TNK FUEL M969	S73372	3	0				
TEST KIT PETROLEUM AV	T05741	3	0				
TRK UTIL 10000 M1097	T07679	37	0				
TANK ASY WTR 3000 GAL	T19033	13	0				
TRK LF DD IHC M-10A	T49119	1	0				
MOBILE SUBS AN/VRC-97	T55957	4	0				
TRK TK FS M978 W/W	T58161	4	0				
TRK TRAC M878	T60353	21	0				
TRK TRAC M915	T61103	4	0				

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Table 6

FY 2003 Planned vs Actual Procurements and Transfers

Nomenclature	Equip No.	FY 2003 Transfers (# of items)		FY 2003 Procurements (\$s)		FY 2003 NGREA (\$s)	
		Plan	Actual	Plan	Actual	Plan	Actual
TRK UTIL 1-1/4T M998	T61494	10	0				
TRK UTIL 1-1/4T M1038	T61562	3	0				
TRUCK CARGO: MTV W/E	T61908	22	0				
TRK TK FS M978	T87243	4	0				
TRK TRAC M916	T91656	5	0				
TRK UTIL 1-1/4T M1025	T92242	1	0				
TRAILER: PALLETIZED LO	T93761	51	0				
WTR PURIF 3000GPH TM	W47225	4	0				
WELDING SHOP TRAILER M	W48391	3	0				
TRCTR FT CAT D7F DV29	W76816	4	0				
TLR BOL G/P 4T M796	W94536	49	0				
UTILITY/CARGO AIRPLANE MODS				3,300,000	1,300,000		
MACHINE GUN, 7.62MM M240 SERIES				1,400,000	0		
GRENADE LAUNCHER, 40MM, MK19-3				14,500,000	0		
M16 RIFLE				900,000	0		
FAMILY OF MEDIUM TACTICAL VEH (FMTV)				309,000,000	299,599,000		
FIRETRUCKS & FIREFIGHTING EQUIPMENT				16,300,000	11,469,000		
FAMILY OF HEAVY TACTICAL VEH (FHTV)				62,700,000	61,246,000		
TRUCK, TRACTOR, YARD TYPE, M878				3,100,000	3,114,000		
HVY EXPANDED MOBILE TACTICAL TRUCK				14,600,000			
ACUS MOD PROGRAM				6,100,000	7,250,000		
TSEC-ARMY KEY MGT SYSTM (AKMS)				700,000	32,000		
FORCE XXI BATTLE CMD BRIGADE & BELOW				10,200,000	10,168,000		
LOGTECH				800,000	837,000		
ISYCON EQUIPMENT				6,700,000	42,000		
MANUEVER CONTROL SYSTEM				1,100,000	1,088,000		
STAMIS TACTICAL COMPUTERS				9,200,000	9,191,000		
AUTOMATED DATA PROCESSING EQUIP				2,900,000	2,567,000		
RESERVE COMPONENT AUTOMATION SYSTEM				7,100,000	7,069,000		
OTHER SUPPORT EQUIPMENT				77,200,000	44,044,000		
UP ARMORED HMMWV						3,582,140	3,524,823
HIGH MOBILITY TRAILER REUTILIZATION						1,511,760	1,951,525
TOP HANDLERS (20 & 40 FT)						840,000	345,704
REFRIGERATED CONTAINER SYSTEM						3,080,000	3,080,000
YARD TRACTOR M878A2						930,000	897,948
TOTAL				\$547,800,000	\$459,016,000	\$9,943,900	\$9,800,000

Major Item of Equipment Substitution List

NOTE: This table identifies equipment authorized by the Service to be used as a substitute for a primary item of equipment. The table also identifies whether or not the item is able to be deployed in wartime. This data meets the Title 10 requirement to identify equipment that is not the most desired item of equipment.

Required Item Nomenclature	Reqd Item Equip No.	Substitute Item Nomenclature	Substitute Item Equip No.	FY 2007 Qty	Deployable?	
					Yes	No
AIRPLANE CARGO TRANSPORT: C-12F	A30062	AIRPLANE CARGO TRANSPORT: C-12R	AA1355	10	X	
AIRPLANE CARGO TRANSPORT: C-12F	A30062	AIRPLANE CARGO TRANSPORT: C-12D	A29812	6	X	
BATH UNIT PORTABLE: GED 8-9 SH	B43663	NON-STANDARD (2 LINs)	43663B	60	X	
CLEANER STEAM PRESSURE JET TRAILER MOUNTED:	C32887	CLEANER STEAM PRESSURE JET: SKIDMTD 125 PSI MAX OIL HTD	E32466	16	X	
CLEANER STEAM PRESSURE JET TRAILER MOUNTED:	C32887	CLEANER STEAM PRESSURE JET: WITH STEAM GEN BASE MTD 100 PSI	E32535	15	X	
CONTAINER ASSEMBLY REFRIG: 8X8X20 W/9000 BTU REF UNIT	C84541	SEMITRAILER REFRIGERATOR: 7 1/2 TON W/UNIT	S71613	10	X	
DATA TRANSFER DEVICE: AN/CYZ-10	D78555	NET CONTROL DEVICE KYX-15/TSEC	N02758	2,410	X	
DATA TRANSFER DEVICE: AN/CYZ-10	D78555	TAPE READER GENERAL PURPOSE: KOI- 18/TSEC	T40405	1,415	X	
DATA TRANSFER DEVICE: AN/CYZ-10	D78555	ELEC TRANSFER KEYING DEVICE ETKD: KYK-13/TSEC	E98103	3,252	X	
DECONTAMINATING APPARATUS: PWR DRVN LT WT	D82404	DECONTAMINATING APPARATUS POWER DRIVEN SKID MOUNTED	F81880	6	X	
DISTRIBUTOR WATER TANK TYPE: 6000 GL SEMITRAILER MTD (CCE)	D28318	TRUCK TANK: WATER 1000 GALLON 2.5T 6X6, M50	X58367	3		X
DRUM FABRIC COLLAPSIBLE: WATER 500 GAL	D69050	NON-STANDARD (2 LINs)	69052D	30	X	
GEN SET DED TM: 10KW 60HZ MTD ONM116A2 PU-798	G42170	GEN ST DSL ENG TM: 10KW 60HZ MTD ON M116 PU-753/M	G40744	109	X	
GEN SET: DED SKID MTD 10KW 60HZ	G74711	GEN ST DSL ENG TM: 10KW 60HZ MTD ON M116 PU-753/M	G40744	5	X	
GEN SET: DED SKID MTD 10KW 60HZ	G74711	GEN ST DSL ENG: 5KW 60HZ 1-3PH AC 120/208 120/240V TAC UTIL	J35813	7	X	
GEN SET: DED SKID MTD 10KW 60HZ	G74711	GEN ST DSL ENG: 10KW 60HZ 1-3PH AC 120/208 120/240V TAC UTIL	J35825	173	X	
GEN SET: DED SKID MTD 10KW 60HZ	G74711	GEN ST DSL ENG: 15KW 60HZ 3PH AC 120/208 240/416V SKD TAC UTIL	J35835	17	X	
GEN SET: DED SKID MTD 10KW 60HZ	G74711	GEN ST GAS ENG: 10KW 60HZ 1-3PH AC 120/240 120/208V TAC UTILITY	J49398	5		X
GEN SET: DED SKID MTD 15KW 50/60HZ	G12170	GEN ST DSL ENG: 15KW 60HZ 3PH AC 120/208 240/416V SKD TAC UTIL	J35835	19	X	
GEN SET: DED SKID MTD 30KW 50/60HZ	G74575	GEN ST DSL ENG TM: 30KW 60HZ MTD ON M-200A1 PU-406	J36383	7	X	
GEN SET: DED SKID MTD 5KW 60HZ	G11966	GEN ST GAS ENG TM: 5KW 60HZ 2EA MTD ON M116 PU-620	J47617	3		X
GEN SET: DED SKID MTD 5KW 60HZ	G11966	GEN ST DSL ENG: SKID MTD 3KW 60 HZ AC 120/208V MEP-016B	G54041	15	X	
GEN SET: DED SKID MTD 5KW 60HZ	G11966	GEN ST DSL ENG: 5KW 60HZ 1-3PH AC 120/208 120/240V TAC UTIL	J35813	832	X	

Major Item of Equipment Substitution List

Required Item Nomenclature	Reqd Item Equip No.	Substitute Item Nomenclature	Substitute Item Equip No.	FY 2007 Qty	Deployable?	
					Yes	No
GEN SET: DED SKID MTD 5KW 60HZ	G11966	GEN ST DSL ENG: 10KW 60HZ 1-3PH AC 120/208 120/240V TAC UTIL	J35825	15	X	
GEN SET: DED SKID MTD 5KW 60HZ	G11966	GEN ST DSL ENG: 15KW 60HZ 3PH AC 120/208 240/416V SKD TAC UTIL	J35835	5	X	
GEN SET: DED SKID MTD 5KW 60HZ	G11966	GEN ST DSL ENG: 30KW 60HZ 3PH AC 120/208 240/416V 50HZ TAC UTIL	J36109	3	X	
GEN SET: DED SKID MTD 5KW 60HZ	G11966	GEN ST GAS ENG: 3KW 60HZ 1-3PH 120/240 120/208V SKD TAC UTILITY	J45699	7		X
GEN SET: DED SKID MTD 5KW 60HZ	G11966	GEN ST GAS ENG: 5KW 60HZ 1-3PH AC 120/240 120/208V SKD TAC UTIL	J47068	57		X
GEN SET: DED SKID MTD 60KW 50/60HZ	G12034	GEN ST DSL ENG: 60KW 60HZ 3PH AC 120/208 240/416 50HZ TAC UTIL	J38301	8	X	
GENERATOR SET DIESEL ENGINE TM: PU-802	G53778	GEN ST DSL ENG TM: 15KW 60HZ MTD ON M-200A1 PU-405	J35492	110	X	
GENERATOR SET DIESEL ENGINE TM: PU-802	G53778	GEN ST DSL ENG TM: 30KW 60HZ MTD ON M-200A1 PU-406	J36383	139	X	
GENERATOR SET DIESEL ENGINE TM: PU-802	G53778	GEN ST DSL ENG TM: 60KW 60HZ MTD ON M-200A1 PU-650	J35629	3	X	
GENERATOR SET DIESEL ENGINE TM: PU-802	G53778	GEN ST DSL ENG: 5KW 60HZ 1-3PH AC 120/208 120/240V TAC UTIL	J35813	4	X	
GENERATOR SET DIESEL ENGINE TM: PU-802	G53778	GEN ST DSL ENG: 15KW 60HZ 3PH AC 120/208 240/416V SKD TAC UTIL	J35835	23	X	
GENERATOR SET DIESEL ENGINE TM: PU-802	G53778	GEN ST DSL ENG: 30KW 60HZ 3PH AC 120/208 240/416V 50HZ TAC UTIL	J36109	3	X	
GENERATOR SET DIESEL ENGINE TM: PU-803	G35851	GEN ST DSL ENG TM: 30KW 60HZ MTD ON M-200A1 PU-406	J36383	24	X	
GENERATOR SET: DIESEL TRL/MTD 60KW 50/60HZ	G78306	GEN ST DSL ENG TM: 60KW 60HZ MTD ON M-200A1 PU-650	J35629	18	X	
HF RADIO SET: AN/GRC-193A	H35404	RADIO SET: AN/GRC-106	Q32756	142	X	
MASK CBR: PROTECTIVE FIELD	M11895	MASK CHEMICAL BIOLOGICAL: M40	M12418	3,779	X	
MEDICAL EQUIPMENT SET SICK CALL FIELD (2):	M30156	MEDICAL EQUIPMENT SET SICK CALL FIELD (1):	M29906	4	X	
NIGHT VISION GOGGLE: AN/PVS-7B	N05482	NIGHT VISION GOGGLES: AN/PVS-5	N04456	5,191	X	
NIGHT VISION GOGGLE: AN/PVS-7B	N05482	MONOCULAR NIGHT VISION DEVICE: AN/PVS-14	M79678	4,907	X	
NIGHT VISION GOGGLE: AN/PVS-7B	N05482	NIGHT VISION SIGHT INDIVIDUAL SERVED WEAPON: AN/PVS-4	N04732	1,473	X	
OPERATING AND TREATMENT UNIT DENTAL FIELD:	P19377	DENTAL OPERATING AND TREATMENT UNIT FIELD:	F95601	214	X	
POWER SUPPLY: PP-6224/U	P40750	POWER SUPPLY: PP-2953/U	P38588	189	X	
PUMP CENTRF: GAS DRVN FRAME MTD 2 IN 125 GPM 50 FT HD	P92030	PUMP CENTRF: GAS DRVN FRAME MTD 1-1/2 IN 65GPM 50 FT HD	P91756	35	X	
RADIAC SET: AN/UDR-13	R31061	RADIACMETER: IM-93/UD	Q20935	1,563	X	
RADIO SET: AN/GRC-213	R30895	RADIO SET: AN/GRC-106	Q32756	268		X
RADIO SET: AN/PRC-104A	R55200	RADIO SET: AN/PRC-74	Q38296	44		X
RADIO SET: AN/PRC-119A	R83005	RADIO SET: AN/PRC-77	Q38299	68		X

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Table 7

Major Item of Equipment Substitution List

Required Item Nomenclature	Reqd Item Equip No.	Substitute Item Nomenclature	Substitute Item Equip No.	FY 2007 Qty	Deployable?	
					Yes	No
RADIO SET: AN/VRC-90A	R67908	RADIO SET: AN/PRC-77	Q38299	9		X
RADIO SET: AN/VRC-90A	R67908	RADIO SET: AN/VRC-46	Q53001	34		X
RADIO SET: AN/VRC-90A	R67908	RADIO SET: AN/VRC-47	Q54174	16		X
RADIO SET: AN/VRC-90A	R67908	RADIO SET: AN/GRC-160	Q34308	4		X
RADIO SET: AN/VRC-90A	R67908	RADIO SET: AN/VRC-87A	R67160	4	X	
RADIO SET: AN/VRC-90A	R67908	RECEIVER-TRANSMITTER RADIO: RT-1523(C)/U	R31609	5	X	
RADIO SET: AN/VRC-91A	R68010	RADIO SET: AN/VRC-46	Q53001	15		X
RADIO SET: AN/VRC-91A	R68010	RADIO SET: AN/GRC-160	Q34308	138		X
RADIO SET: AN/VRC-92A	R45407	RADIO SET: AN/VRC-46	Q53001	100		X
RIFLE 5.56 MILLIMETER: M16A2	R95035	RIFLE 5.56 MILLIMETER: M16A1	R94977	5,126		X
ROLLER TOWED VIBRATING: DED/GAS 1 DRUM 5 TON	S10682	ROLLER VIBRATORY: SELF-PROPELLED DED W/PADFOOT SHELL KIT TYPE I	R13167	18	X	
ROLLER VIBRATORY: SELF-PROPELLED HIGH IMPACT SINGLE DRUM (CCE)	S12916	ROLLER MOTORIZED: VIBRATORY ROLLER TYPE II	R11127	8	X	
TANK UNIT LIQUID DISPENSING TRAILER MOUNTING:	V19950	TANK LIQUID STORAGE METAL: PETRO PRODUCTS SKID MTD 600 GAL	V15566	72	X	
TERMINAL RADIO-TELEPHONE MOBILE SUBSCRIBER: AN/VRC-97	T55957	RECEIVER TRANSMITTER: RT-1539(P)A(C)/G	R30434	32	X	
TRANSPORTER COMMON BRIDGE:	T91308	NON-STANDARD LIN	91308T	56	X	
TRUCK CARGO: 4X4 LMTV, M1078	T60081	TRUCK CARGO: 2.5T 6X6	X40009	795		X
TRUCK CARGO: 4X4 LMTV, M1078	T60081	TRUCK CARGO: 2.5T 6X6 XLWB	X40283	5		X
TRUCK CARGO: 4X4 LMTV, M1078	T60081	TRUCK CARGO: DROP SIDE 5T 6X6, M923	X40794	360	X	
TRUCK CARGO: 4X4 LMTV, M1078	T60081	TRUCK CARGO: 2.5T 6X6 W/W	X40146	156		X
TRUCK CARGO: 4X4 LMTV, M1078	T60081	TRUCK VAN: EXPANSIBLE 5T 6X6	X62237	6	X	
TRUCK CARGO: 4X4 LMTV, M1078	T60081	TRUCK CARGO: DROP SIDE 2.5T 6X6	X40077	65		X
TRUCK CARGO: 4X4 LMTV, M1078	T60081	TRUCK CARGO: DROP SIDE 5T 6X6 W/W	X40931	22	X	
TRUCK CARGO: 4X4 LMTV, M1078	T60081	TRUCK CARGO: DROP SIDE 2.5T 6X6 W/W	X40214	4		X
TRUCK CARGO: 4X4 LMTV W/W, M1078	T60149	TRUCK CARGO: 2.5T 6X6	X40009	15		X
TRUCK CARGO: 4X4 LMTV W/W, M1078	T60149	TRUCK CARGO: DROP SIDE 5T 6X6	X40794	18	X	
TRUCK CARGO: 4X4 LMTV W/W, M1078	T60149	TRUCK CARGO: 2.5T 6X6 W/W	X40146	223		X
TRUCK CARGO: 4X4 LMTV W/W, M1078	T60149	TRUCK CARGO: DROP SIDE 2.5T 6X6	X40077	11		X
TRUCK CARGO: 4X4 LMTV W/W, M1078	T60149	TRUCK CARGO: 2.5T 6X6 XLWB W/W	X40420	15		X
TRUCK CARGO: 4X4 LMTV W/W, M1078	T60149	TRUCK CARGO: DROP SIDE 5T 6X6 W/W	X40931	26	X	
TRUCK CARGO: 4X4 LMTV W/W, M1078	T60149	TRUCK CARGO: DROP SIDE 2.5T 6X6 W/W	X40214	33		X
TRUCK CARGO: MTV, M1083	T61908	TRUCK CARGO: 2.5T 6X6, M35	X40009	6		X
TRUCK CARGO: MTV, M1083	T61908	TRUCK CARGO: 5T 6X6 LWB	X40831	11	X	
TRUCK CARGO: MTV, M1083	T61908	TRUCK CARGO: DROP SIDE 5T 6X6	X40794	1,457	X	

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Table 7

Major Item of Equipment Substitution List

Required Item Nomenclature	Reqd Item Equip No.	Substitute Item Nomenclature	Substitute Item Equip No.	FY 2007 Qty	Deployable?	
					Yes	No
TRUCK CARGO: MTV, M1083	T61908	TRUCK CARGO: 2.5T 6X6 W/W, M35	X40146	6		X
TRUCK CARGO: MTV, M1083	T61908	TRUCK CARGO: 5T 6X6 LWB W/W	X40968	12	X	
TRUCK CARGO: MTV, M1083	T61908	TRUCK CARGO: DROP SIDE 2.5T 6X6	X40077	4		X
TRUCK CARGO: MTV, M1083	T61908	TRUCK CARGO: DROP SIDE 5T 6X6 W/W	X40931	182	X	
TRUCK CARGO: TACTICAL 8X8 HEMTT, W/MED CRANE, M985	T39586	TRUCK CARGO: TACTICAL 8X8 HEMTT W/LT CRANE, M977	T59278	7	X	
TRUCK CARGO: TACTICAL 8X8 HEMTT, W/MED CRANE, M985	T39586	TRUCK CARGO: TACTICAL 8X8 HEMTT, W/W W/LT CRANE, M977	T39518	3	X	
TRUCK DUMP: MTV, M1090	T64911	TRUCK DUMP: 5T 6X6, M929	X43708	346	X	
TRUCK DUMP: MTV, M1090	T64911	TRUCK DUMP: 5T 6X6 W/W, M930	X43845	22	X	
TRUCK LIFT FORK: DSL DRVN 4000 LB CAP ROUGH TERRAIN	T49255	TRUCK LIFT FORK: CLEAN BURN DIESEL 4000 LB	T73645	6	X	
TRUCK LIFT FORK: DSL DRVN 4000 LB CAP ROUGH TERRAIN	T49255	TRUCK LIFT FORK: DED 6000 LB VARIABLE REACH RT AMMO HDLG	T48944	10	X	
TRUCK LIFT FORK: DSL DRVN 4000 LB CAP ROUGH TERRAIN	T49255	TRUCK LIFT FORK: DSL DRVN 10000 LB CAP 48IN LD CTR ROUGH TERRAIN	T49119	5	X	
TRUCK LIFT: FORK VARIABLE REACH ROUGH TERRAIN	T73347	TRUCK LIFT FORK: DSL DRVN 6000 LB CAP ROUGH TERRAIN	X48914	6	X	
TRUCK LIFT: FORK VARIABLE REACH ROUGH TERRAIN	T73347	TRUCK LIFT FORK: DED 6000 LB VARIABLE REACH RT AMMO HDLG	T48944	30	X	
TRUCK LIFT: FORK VARIABLE REACH ROUGH TERRAIN	T73347	TRUCK LIFT FORK: DSL DRVN 10000 LB CAP 48IN LD CTR ROUGH TERRAIN	T49119	176	X	
TRUCK TANK: FUEL SERVICING 2500 GALLON, HEMTT, M978	T87243	TRUCK CARGO: DROP SIDE 5T 6X6 W/W, M925	X40931	7	X	
TRUCK TRACTOR: LET 6X6 66000 GVW W/W C/S, M916	T91656	TRUCK TRACTOR: MET 8X6 75000 GVW W/W C/S, M920	T61171	202	X	
TRUCK TRACTOR: LINE HAUL C/S 50000 GVWR 6X4, M915	T61103	TRUCK TRACTOR: 5T 6X6, M818	X59326	48		X
TRUCK TRACTOR: LINE HAUL C/S 50000 GVWR 6X4, M915	T61103	TRUCK CARGO: DROP SIDE 5T 6X6, M813	X40794	3		X
TRUCK TRACTOR: MTV, M1088	T61239	TRUCK TRACTOR: 5T 6X6, M818 (2 LINS)	X59326	1,000		X
TRUCK TRACTOR: YD 46000 GVW 4X2, M878	T60353	TRUCK TRACTOR: 5T 6X6, M818 (2 LINS)	X59326	59		X
TRUCK UTILITY: CARGO/TROOP CARRIER 5/4T, HMMWV, M998	T61494	CUCV TRUCK UTILITY: TACTICAL 3/4 TON M1009	T05028	1,427		X
TRUCK UTILITY: CARGO/TROOP CARRIER 5/4T, HMMWV, M998	T61494	CUCV TRUCK CARGO: TACTICAL 5/4 TON M1008	T59482	581		X
TRUCK UTILITY: CARGO/TROOP CARRIER 5/4T, HMMWV, M998	T61494	CUCV TRUCK CARGO: TACTICAL 5/4 TON 4X4 W/COMMO KIT	T59346	188		X
TRUCK UTILITY: CARGO/TROOP CARRIER 5/4T, HMMWV, M998	T61494	TRUCK UTILITY: S250 SHELTER CARRIER, HMMWV	T07543	115	X	
TRUCK UTILITY: CARGO/TROOP CARRIER 5/4T, HMMWV, M998	T61494	TRUCK UTILITY: HEAVY VARIANT HMMWV 4X4 10000 GVW	T07679	813	X	
TRUCK UTILITY: CARGO/TROOP CARRIER 5/4T, HMMWV, M998	T61494	TRUCK UTILITY: TOW CARRIER ARMD 5/4T, HMMWV	T05096	273	X	

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Table 7

Major Item of Equipment Substitution List

Required Item Nomenclature	Reqd Item Equip No.	Substitute Item Nomenclature	Substitute Item Equip No.	FY 2007 Qty	Deployable?	
					Yes	No
TRUCK UTILITY: CARGO/TROOP CARRIER 5/4T, HMMWV, M998	T61494	TRUCK UTILITY: ARMT CARRIER ARMD 5/4T, HMMWV	T92242	825	X	
TRUCK UTILITY: CARGO/TROOP CARRIER 5/4T, HMMWV, M998	T61494	CUCV TRUCK CARGO: TACTICAL 5/4 TON 4X4 SHELTER CARRIER M1028	T59414	15		X
TRUCK UTILITY: CARGO/TROOP CARRIER 5/4T, HMMWV, M998	T61494	TRUCK UTILITY: ARMT CARRIER ARMD 5/4T W/W, HMMWV	T92310	63	X	
TRUCK UTILITY: CARGO/TROOP CARRIER 5/4T, HMMWV, M1038	T61562	CUCV TRUCK UTILITY: TACTICAL 3/4 TON M1009	T05028	46		X
TRUCK UTILITY: CARGO/TROOP CARRIER 5/4T, HMMWV, M1038	T61562	CUCV TRUCK CARGO: TACTICAL 5/4 TON M1008	T59482	60		X
TRUCK UTILITY: CARGO/TROOP CARRIER 5/4T, HMMWV, M1038	T61562	CUCV TRUCK CARGO: TACTICAL 5/4 TON 4X4 W/COMMO KIT	T59346	48		X
TRUCK UTILITY: CARGO/TROOP CARRIER 5/4T, HMMWV, M1038	T61562	TRUCK UTILITY: HEAVY VARIANT HMMWV 4X4 10000 GVW	T07679	3	X	
TRUCK UTILITY: CARGO/TROOP CARRIER 5/4T, HMMWV, M1038	T61562	TRUCK UTILITY: TOW CARRIER ARMD 5/4T, HMMWV	T05096	13	X	
TRUCK UTILITY: CARGO/TROOP CARRIER 5/4T, HMMWV, M1038	T61562	TRUCK UTILITY: ARMT CARRIER ARMD 5/4T, HMMWV	T92242	48	X	
TRUCK VAN: LMTV, M1079	T93484	TRUCK VAN: SHOP 2.5T, 6X6, M109	X62340	157	X	
TRUCK WRECKER: MTV, M1089	T94709	TRUCK WRECKER: 5T, 6X6, M936	X63299	119	X	
TRUCK WRECKER: HEMTT, M984	T63093	TRUCK WRECKER: 5T, 6X6, M936	X63299	24	X	

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Significant Major Item Shortages

Table 8

NOTE: This table provides an RC top ten prioritized (PR) shortage list for major items of equipment required for wartime missions but which are currently not funded in the FYDP. It lists the total quantity required, the total unfunded requirement, the individual item cost, and the cost of the unfunded portion. This data is consistent with other unfunded data submitted by the Service.

PR	Nomenclature	Total Req'd	# Items Short	Item Cost	Total Shortage Cost	Rationale/Justification
1	LIGHT MEDIUM TACTICAL VEHICLE (LMTV) 2.5 TON TRUCK (multi-LIN)	5,060	1,319	152,934	201,719,946	# items short = not funded in FYDP
2	MEDIUM TACTICAL VEHICLES (MTV) 5 TON TRUCK (multi-LIN)	7,532	3,557	183,000	650,931,000	# items short = not funded in FYDP
3	HIGH MOBILITY MULTI-PURPOSE WHEELED VEHICLE (HMMWV) (Multi-LIN)	19,420	5,948	115,725	688,332,300	# items short = not funded in FYDP
3a	HIGH MOBILITY MULTI-PURPOSE WHEELED VEHICLE (HMMWV) UP-ARMORED M1114 (T92446)	1,008	253	146,844	37,151,532	Critical shortages in CS MP units.
3b	HIGH MOBILITY MULTI-PURPOSE WHEELED VEHICLE (HMMWV) UP-ARMORED M1114 (T92446)	30	30	146,844	4,405,320	Critical shortages in CM Corps units
4	MULTI-BAND SUPER HIGH FREQUENCY (SHF) TERMINAL (PHOENIX) (S78466)	50	44	3,200,000	140,800,000	Required for the Integrated Signal Theater Bde. Provides inter-theater and intra-theater range extension support.
5	ARMORED SECURITY VEHICLE: WHEELED W/MOUNT (ASV) (A93374)	256	256	809,500	207,232,000	Critical shortages in Combat MP and Transportation units
6	ALL TERRAIN LIFTING ARMY SYSTEM (ATLAS) (T73347)	880	253	110,000	27,830,000	Critical shortages in company level CSS units.
7	HEMTT LOAD HANDLING SYSTEM (LHS) (T96496)	101	85	230,000	19,550,000	Fills required equipment shortages in the Improved Cargo Handling Operations and Med. Supply Companies.
8	HEMTT BASED WATER TENDER (Z00742)	42	25	175,000	4,375,000	Critical shortages in Engineer Fire Fighting and Ammo Spt Teams
8a	TACTICAL FIRE FIGHTING TRUCK (TFFT) (T82180)	76	23	654,583	15,055,409	Critical shortages in Engineer Fire Fighting and Ammo Spt Teams
9	TRAILER CARGO: FMTV W/DROPSIDES M1095/M1082 (T95555/T96554)	1,261	528	62,829	33,173,712	Critical shortages in CS/CSS units.
10	LIGHT TACTICAL TRAILER: 3/4 TON (T95992)	4,394	3,421	8,954	30,631,634	Critical shortages in CS/CSS units.

Chapter 3 United States Marine Corps Reserve

I. Marine Corps Overview

The Marine Corps' role as the Nation's premier expeditionary force-in-readiness, combined with a forward deployed posture, has established the capability to rapidly and effectively contribute to joint operations. Scalable, combined arms teams, seamlessly integrating robust ground and aviation forces with adaptive logistics, create speed, flexibility, and agility to effectively respond to each unique emerging situation. The high state of training and quality of Marines along with a warrior ethos—highlighted by a creed that every Marine is a rifleman—allows Marines to thrive in the chaotic, unstable, and unpredictable environment.¹

A. Overall Marine Corps Planning Guidance

The objectives of the National Military Strategy (NMS) are to win the War on Terrorism, enhance our ability to fight as a joint force, and transform the Armed Forces “in stride.” Executing the NMS requires a force able to generate decisive effects in any contingency and sustain multiple, overlapping operations. The force must have the capabilities necessary to create and preserve an enduring peace. This strategy requires a joint force that is rapidly deployable anywhere on the globe, capable of sustained, high-intensity operations until the objectives of the nation are met.

The Marine Corps dedication and drive to keep the United States safe and secure against terrorism and our enemies are a critical element of America's military, bridging the gap between the light-Special Operations Forces and the heavyweight capability of the Army. Highlighting the expeditionary mindset of the Navy-Marine Corps team, combined arms forces have successfully operated in desert, urban, swamp, and rural environments while effectively conducting combat, peacekeeping, and humanitarian operations—at times simultaneously. Flexibility and adaptability are key characteristics of an expeditionary force, and they are critical advantages that the Navy-Marine Corps team must seek to optimize—particularly in this time of global uncertainty.



**Reserve Marines from
HMLA-775 in Iraq**

While the entire Marine Corps is engaged in supporting the Global War on Terror (GWOT), we also have a responsibility to prepare for future conflicts and contingencies. The Defense Department's Strategic Planning Guidance directs balanced capabilities for controlling four principal challenges: Traditional, Irregular, Catastrophic, and Disruptive. The challenge is to determine the right balance of those capabilities the Marine Corps must provide across the operational spectrum. *Naval Power 21* is the Department of the Navy's vision that enhances Navy and Marine Corps capabilities today and tomorrow. This vision serves as the way ahead for naval programs and operations. It incorporates the Navy's *Sea Power 21* and *21st Century*

¹ Commandant of the Marine Corps SASC Testimony, February 10, 2005

Marine Corps frameworks as a foundation to ensure naval forces control the seas, assure access, and project joint power beyond the sea to influence events and advance American interests across the range of military operations.

America's ability to use international seas and waterways, as both maneuver space and an operating base unconstrained by foreign veto, allows naval forces to project combat power into the littoral regions, which contain more than half the world's population and more than 75 percent of its major urban areas. Highly mobile and ready for combat, forward-deployed expeditionary forces are critical instruments of U.S. diplomacy and central components of joint military force packages designed to quickly contain a crisis or defeat an emerging threat.

The Navy and Marine Corps Team offers unmatched amphibious forcible-entry capabilities and can provide a persistent combat capability from their mobile sea base, thus reducing the U.S. logistical "footprint" ashore. By exploiting our nation's premier asymmetric advantage—command of the sea—the Navy and Marine Corps can loiter over the horizon and project, protect, and sustain integrated joint warfighting capabilities, provide additional options for the President, and ensure operational independence for Combatant Commanders across the full spectrum of warfare.²

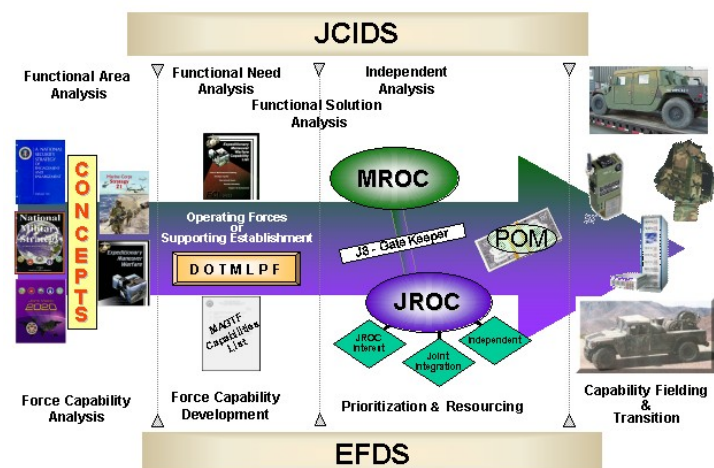


**Reserve Marines
in Iraq**

B. Marine Corps Equipping Policy

In 2002, the Commandant of the Marine Corps signed into order the Expeditionary Force Development System (EFDS), a systems approach to developing, resourcing, and equipping the Force to better support the National Security Strategy, NMS, and the Joint Vision. The EFDS is a single integrated system of dynamic processes and functions, producing and sustaining integrated capabilities that meet the needs of the Marine Corps and the combatant

commanders. The EFDS is designed to facilitate the development and realization of military operational concepts. It is a streamlined and integrated system that covers all phases of concept development including the acquisition of necessary equipment and weapons systems. The EFDS proved to be of great value to our forces engaged in combat operations and is proving to be a helpful means of ensuring the Marine Corps quickly profits from recent operational experiences in the development of new capabilities. Once identified, these capabilities are entered into the



² Deputy Commandant for Combat Development SASC Testimony on Sea Basing and Resetting the Force, April 19, 2005

EFDS, which then validates, prioritizes, resources, implements and transitions the requirements throughout the force to achieve the desired capability. The EFDS produces integrated capabilities based on fundamental concepts, which are supported by interdependent processes for development of Doctrine, Organization, Training, Materiel, Leadership and Education, People and Facilities (DOTMLPF).

From the EFDS, the Marine Corps develops a single Approved Acquisition Objective (AAO) for each item of equipment. The AAO includes equipment modernization plans and addresses all initial issue quantities and planned sustainability requirements for both the AC and RC. There are three types of appropriations the RC utilizes for procurement of ground and aviation equipment and aircraft: Procurement Marine Corps (PMC), Aircraft Procurement Navy (APN), and National Guard and Reserve Equipment Appropriation (NGREA). PMC is the primary source of funding for ground equipment, and APN is the primary source of funding for aviation equipment. NGREA is not part of the formal DoD budgeting process; rather, a form of Congressional “add” that historically has funded a portion of RC ground and aviation equipment requirements.

The current Marine Corps equipping policy is a direct result of the GWOT. Limited availability of Marine Corps equipment inventories resident in strategic programs (e.g., In-Stores, Marine Corps Prepositioning–Norway, and Maritime Prepositioning Ships) and long lead times for FY 2005 acquisition deliveries are necessitating global sourcing from throughout the Marine Corps. Global sourcing requirements are being validated and approved by HQMC (DC, I&L and DC, PP&O). All available resources from the supporting establishment (Marine Corps Logistics Command and Marine Corps Systems Command) are required to be utilized and exhausted prior to global sourcing from operational or RC units.

In order to ensure seamless operational support to OIF and the most cost effective strategy for force rotations, the Commandant directed that equipment necessary to prosecute OIF operations remain in theater for as long as practical. This policy has allowed the Marine Corps to focus on identifying, attaining, and delivering the best equipment possible to forces in theater, while significantly reducing equipment rotation costs, thereby husbanding critical financial resources for other uses.

C. Marine Corps Plan to Fill Mobilization Shortages in the RC

The total wartime equipment requirement for Marine Forces Reserve (MFR) is predicated upon unit Tables of Organization and Equipment (T/O&E). The T/O&E, in the case of MFR, consists of two parts: a Training Allowance (T/A) and In-Stores assets. The T/A is the equipment MFR units maintain at their Reserve Training Centers (RTCs). The amount of T/A each unit possesses is determined by training requirements, space limitations, and staffing levels at the RTC. MFR units have established T/As which average approximately 80 percent of the established T/O&E. The establishment of T/As allows MFR to better cross level equipment to support CONUS training requirements of all units of the Force with a minimal overall equipment requirement. This equipping concept requires the support of the Service to ensure that the “delta” between a unit’s T/A and T/O&E is available in the event of mobilization and deployment.

Upon mobilization, MFR ground equipment shortfalls are satisfied from a variety of sources, one of which is Remain Behind Equipment (RBE) left by AC units who have deployed to locations where equipment is already prepositioned. When MFR units mobilize and integrate into the gaining Marine Air-Ground Task Force (MAGTF), RBE or prepositioned equipment, or both, serve to moderate equipment shortfalls.

The GWOT has placed a heavy demand and toll on equipment. To mitigate these demands, the Marine Corps has undertaken a number of initiatives including: Strategic Ground Equipment Working Group (SGEWG), equipment cross-leveling, and resetting the force.

Strategic Ground Equipment Working Group (SGEWG). The SGEWG has been chartered to optimally position equipment to support the needs of deployed forces, the Corps' strategic programs, and training of non-deployed forces. SGEWG efforts have led to a five percent increase in overall Supply Readiness for MFR, and facilitated the ability to sustain vital training for non-deployed forces at their RTCs.

Equipment Cross-leveling. Continuing high demand on equipment coupled with equipment shortfalls within the Total Force has necessitated cross-leveling of equipment—both within the active and reserve forces, and across both components. The priority of effort must be to forces deployed in theater or preparing to deploy. While this has resulted in selected equipment shortfalls at RTCs, another initiative is underway to address these deficiencies.

Resetting the Force. The Marine Corps recently initiated an effort to “reset the force.” This initiative seeks to restore/enhance active and reserve forces combat capability impacted by OEF, OIF, and Horn of Africa (HOA) operations, to meet post-Iraq warfighting and contingency requirements. The initiative assumes a large percentage of the OEF, OIF, and HOA Equipment Density Lists (EDLs) will be unserviceable by the end of the campaign, requiring repair or replacement based on best business decision. It furthermore assumes home station shortfalls will be restocked to 100 percent of what was provided to support OEF, OIF, and HOA. The cost to reset the force was pursued via the FY 2006 Supplemental, with items not funded by the Supplemental to be competed in POM-08.

Critical Asset Rapid Distribution Facility. MFR has undertaken an in-house initiative to support the equipping of its Marines—the establishment of the Critical Asset Rapid Distribution Facility (CARDF). The CARDF has been designated as the primary and central location for all newly fielded items of Individual Clothing and Combat Equipment, from which gear is issued to reserve forces preparing to deploy.

Urgent Universal Needs Statement (UUNS). Some RC equipment shortfalls, particularly those that have been newly identified and deemed essential to on-going operations in OEF and OIF, are candidates for submission via the fast track UUNS process. Requirements submitted through this venue are acted upon by the Marine Requirements Oversight Council and, if approved, funded in short order. These solutions incorporate existing off-the-shelf and emerging technologies.

D. Current Marine Corps Initiatives Affecting RC Equipment

In the near-term, the Marine Corps top priorities are to maintain a high state of readiness and to provide capable forces which meet the needs of the Unified Combatant Commanders. For the long-term, the Marine Corps and Navy are committed to developing a Seabasing capability that will provide a critical joint competency for assuring access and projecting power. This marked increase in warfighting capability will be apparent as new systems are introduced into both the active and reserve forces, such as the MV-22 Osprey, the Expeditionary Fighting Vehicle, the Joint Strike Fighter, and the Lightweight 155mm Howitzer. Similarly, logistics modernization has become a warfighting imperative and is being met head on by the Global Combat Support System-Marine Corps (GCSS-MC). The following paragraphs highlight a few current or emerging initiatives involving reserve forces.

Force Structure Review Group (FSRG). The Marine Corps, recognizing the need to rebalance forces to sustain the GWOT while also transforming to meet the longer term needs of the 21st Century, convened a FSRG in 2004 to review and recommend changes to active and reserve force capabilities. Implementation of CMC approved initiatives is underway with the majority achieving initial operational capability in FY 2006, with full operational capability by FY 2008. These initiatives are end strength and structure neutral, with increases in capabilities sourced through offsets internal to the Marine Corps derived from the disestablishment and reorganization of less critical capabilities, and military to civilian conversions.

FSRG structure changes within the RC include multiple divestments: one tank battalion headquarters, two tank companies, two artillery battalion headquarters, four artillery batteries, one low altitude air defense battalion, two air delivery platoons, and three TOW platoons. New RC capabilities being established include: one intelligence support battalion, one anti-terrorism/force protection battalion, two light armored reconnaissance companies, a personnel retrieval and processing company, two additional civil affairs teams, and over 1000 new Individual Mobilization Augmentee billets.

Implementation of these initiatives requires additional equipment, facilities, training, and operations and maintenance resources. These requirements were partially funded through the FY 2005 Supplemental with remaining funding to be sourced through the POM process or other supplemental opportunities.

Marine Corps Ground Equipment Review Group (MCERG). The Marine Corps recently convened the MCERG, chartered to create efficiencies to include developing a standard list of equipment items for every unit and skill set in the Marine Corps. Comprised of representatives from Headquarters Marine Corps and the operating forces, this five phased effort is now in phase four and nearing completion. In earlier phases, the MCERG reviewed every T/O&E in the Marine Corps and created "capability sets" based on unit mission and Military Occupational Skill sets. This effort will result in greater standardization of equipment fielded to active and reserve forces and, coupled with other initiatives, facilitate the rapid identification of equipment shortfalls throughout the Marine Corps.

Distributed Operations (DO). DO is an emerging capability built on our core concepts of Expeditionary Maneuver Warfare (EMW) and Operational Maneuver from the Sea (OMFTS).

DO will provide increased freedom of action and autonomy at lower tactical levels, enabling subordinate commanders to compress decision cycles, seize the initiative, and exploit fleeting opportunities. Successful implementation requires shared situational awareness through a common operating picture, procurement of new equipment, and extensive training. Based on this richer, higher resolution intelligence picture, and guided by commander's intent, distributed forces could aggregate or remain distributed.

The AAO includes active and reserve infantry battalions and the fielding plan is presently under development. Program implementation is being accelerated to respond to current theater requirements with funding requirements slated for consideration in POM-08, and perhaps earlier if an opportunity arises.

E. Marine Corps Plan to Achieve Full Compatibility between AC and RC

The Marine Corps recognizes the necessity of interoperable active and reserve forces and, to that end, pursues a policy of horizontally (concurrently) fielding new equipment to the Marine Corps Reserve. In consideration of ongoing combat operations, however, priority for distribution of new and combat serviceable equipment remains with those units (active and reserve) that are deployed or scheduled to deploy. Continued emphasis on modernization and equipment upgrades is necessary to ensure the Marine Corps Reserve retains its warfighting capabilities in support of the Total Force. Reserve logistics support must also keep pace with the logistical operational architecture changes occurring in the AC.

Although external to DOD's POM process, compatibility of AC-RC equipment has been aided significantly by prior year NGREA. FY 2004 and FY 2005 NGREA earmarked for the Marine Corps Reserve made a substantial dent in the backlog of shortfall equipment and closed the gap in AC and RC equipment differences. The \$44.6M FY 2004 appropriation procured significant quantities of communications equipment to include PRC-117s, PRC-119s, PRC-150s, EPLARS; night vision equipment; aircraft upgrades (e.g., AH-1 ECM Suites, KC-130T Night Vision Lighting and ARC-210 radios, CH-53E Helicopter Night Vision System); and numerous other T/O&E items. The \$50M FY 2005 appropriation procured similar communications equipment, aircraft upgrades, intelligence equipment, simulators, night vision equipment, laser target markers, rifle scopes, and many other T/O&E items.

II. Marine Corps Reserve (USMCR) Overview

A. Current Status of the USMCR

1. General Overview

As the last few years have demonstrated, the Marine Corps Reserve is a full partner in our Total Force and to the security of the United States, both at home and in foreign lands. We remain “Ready, Willing, and Able” when called upon to augment and reinforce the active forces. With a budgeted Reserve end strength of 39,600, operational tempo has been high. Since September 11, 2001, the Marine Corps has activated over 36,000 Reserve Marines, and more than 95 percent of all MFR units. As of 30 September 2005, approximately 8,550 Reserve Marines remain on active duty. Many individuals and units have deployed more than once, participating in combat and Phase IV operations in Iraq, and serving as individual augmentees to Marine and joint staffs. Mobilized Marine Reserve infantry battalions have also served as ready reaction forces, “on call” to support the Federal Emergency Management Agency’s role in homeland security (including supporting Joint Task Force Katrina), as well as the Joint Forces Command and the U.S. Northern Command.



Reserve Unit on Patrol in Iraq

Marine Corps Reserve units maintain high levels of pre-mobilization readiness. Ninety-nine percent of Selected Marine Corps Reserve (SMCR) Marines called up for active duty reported to their parent command with less than one percent requesting a deferment, delay, or exemption. At the onset of Operation Iraqi Freedom, when speed was essential, the Marine Corps Reserve executed a rapid and efficient mobilization with units averaging six days from notification to being deployment-ready, and 32 days from receipt of a deployment order to arrival in theater.

The training, leadership, and quality of life of our RC remain significant Marine Corps priorities, as does the judicious employment of Reserve Marines as we continue to meet national security objectives.

2. Status of Equipment

The current commitment to the GWOT has had many far-reaching and deep impacts upon an already-strained Marine Corps equipment inventory. The Marine Corps presently has 26 percent of its active operating forces deployed in support of the GWOT, utilizing 30 percent of its ground equipment and 25 percent of its aviation assets. Equipment usage rates in combat theaters are up to eight times higher than those in other locations, resulting in increased operation and maintenance costs beyond what is typically budgeted. Increased maintenance requirements are being driven by extreme operating environments, repairs to vehicles damaged while operating in the field, and the addition of armor to vehicles not designed to carry the additional weight resulting in significant stress on vehicle frames and power trains.

During each month of OIF, the Marine Corps incurred equipment maintenance and sustainment related costs of nearly \$80M per month beyond normal budgeted levels. Assuming a similar operational tempo going forward and making adjustments for current equipment density deployed in theater, the Marine Corps can expect to spend more than \$50M per month over baseline for (non-combat) ground equipment maintenance requirements.

To date, more than 1,800 principal end items valued at \$94.3M have been destroyed. An additional 2300 damaged end items will require depot maintenance. The decision to replace rather than repair major equipment items is, in most cases, cost-effective due to transportation costs to and from the Central Command's area of responsibility, accelerated aging due to high operational tempo, environmental degradation, and the need to keep up-armored vehicles in theater to support future rotations.

Reserve units participating in operations in Afghanistan, Iraq, and other locations in the GWOT continue to experience critical AC-RC communications incompatibility issues, which have a direct impact on effective command and control. Additionally, several RC units lack current communications technology, especially at the intra-squad and small tactical unit level, and experience severe degradation of command and control when operating with active forces. FY 2005 NGREA funded the purchase of tactical radios that mitigated most of the existing command and control capability deficiencies in small tactical and specialized units. However, tactical communications equipment, to include logistics command and control innovations, remains among the top equipping priorities.

a. Future Readiness

While the primary focus of the Marine Corps today is supporting the GWOT, the responsibility remains to prepare for future conflicts and contingencies. A continued transformation recognizes that an array of non-traditional threats will increasingly influence the development of tomorrow's Corps. The challenge is to determine the right balance of capabilities the Marine Corps must provide to the Nation in order to help defeat a broad range of adversaries.

Sustaining RC readiness requires adequate funding to appropriations supporting Marine Corps Reserve activities (i.e., APN, MCNR, OMMCR, PMC, PANMC, RPMC). Maintaining mobilization readiness while resetting and transforming RC forces under currently planned timeframes and in a constrained fiscal environment, pose formidable resourcing and leadership challenges.

b. Equipment On-hand

The equipment the RC maintains on-hand (T/A) is reviewed annually and assigned to RTCs based on the quantity and type of equipment each center can adequately maintain and store. *Table 1* provides specific information on the total Marine Corps Reserve equipment inventories, including both the T/A and In-Stores assets and required equipment numbers. In some instances, the equipment on-hand reflects material that is Not Ready For Issue (NRFI) due to lack of maintenance funding. In-Stores assets are available to any Marine Corps unit submitting a valid requirement; therefore, availability of In-Stores assets to support MFR requirements may be limited.

c. Average Age of Major Items of Equipment

Table 2 provides the average age of selected major items of equipment. Overall, the average age of aviation assets has increased since last year, as expected.

d. Compatibility of Current AC/RC Equipment

AC-RC equipment compatibility is satisfactory when viewed in total; however, areas of incompatibility exist. Reserve units participating in operations in Afghanistan, Iraq, and other locations in the GWOT continue to experience communications incompatibilities with active forces, primarily with intra-squad and small tactical unit level communications.

One example is the Tropo Satellite Support Radio (TSSR) (AN/GRC-239) system, which exists in insufficient number in the RC. TSSRs allow rapid deployment of critical communication links which greatly reduce the time required to establish communications to all levels of command and control centers. Without TSSRs, RC forces are greatly limited in their ability to quickly establish necessary command and control links with active forces upon arrival into an area of operation.

Another example of incompatibility is the KC-130T Avionics Modernization Program (AMP). AMP contains essential components which will allow the KC-130T to comply with new and emerging worldwide airspace requirements. Without it, the KC-130T will be subject to restricted flight operations.

AC-RC equipment compatibility is the goal but the challenge is the continuing high demand on equipment, coupled with attrition of equipment through wear, damage, or destruction. The impact of NGREA in addressing this area is visible and positive. As outlined earlier in this report, FY 2004 and FY 2005 NGREA made great strides in equipping RC forces with the same gear resident in the AC.

e. Maintenance Issues/Programs

Maintenance of equipment remains one of the top priorities for MFR. Sufficient funding must be programmed to sustain the materiel readiness and capability of legacy systems and new acquisitions. These systems are currently maintained at a requisite level of readiness due to the hard work of skilled Marines and the assistance of Congress in providing resources for maintenance and spare parts. This section briefly reviews some programs and initiatives that help maintain and improve the materiel readiness of the systems in the RC.

Alternative Power. MFR is actively seeking alternate power sources to provide more reliable power and reduce power spikes and wear and tear on radio equipment from frequent battery changes. This initiative will increase communications reliability and extend equipment life. Prior year NGREA has funded some of this requirement.

Intermediate Maintenance Initiatives. MFR continues to exercise better business practices through competitive outsourcing of intermediate maintenance requirements. For example, faster turn-around times and increased readiness has resulted from outsourcing diesel engine remanufactures to UNICOR in Beaumont, Texas. Furthermore, MFR continues to partner with

the Marine Corps Logistics Command (MCLC) to consolidate all Secondary Repairables under MCLC control, thus enabling more efficient and timely support to the maintenance effort of MFR units.

Depot Maintenance. The Marine Corps Depot Maintenance Program enhances AC and RC equipment readiness. The RC continues to be proactive in articulating depot maintenance requirements through the annual Marine Corps Depot Maintenance process. Use of the Marine Corps depot maintenance capability has been optimized using organic depots, other service depots, and commercial sources—in that order. Organic depots, however, have been extremely challenged to obtain the equipment requiring repair due to deployed status.

Service Life Extension Program (SLEP). Introduction of SLEPs into the lifecycle of an item of equipment reduces long-term maintenance costs, provides upgraded capability, and sustains and improves readiness. The Marine Corps currently is engaged in SLEPs of Amphibious Assault Vehicles (AAVs), Light Armored Vehicles (LAVs), and construction equipment.

f. Modernization Programs and Shortfalls

The following paragraphs highlight essential Marine Corps Reserve's equipment priorities. While the need for consistency in articulating requirements is understood, these priorities may change over time due to the shifting nature of warfighting requirements, shortfalls being satisfied by supplemental funding, or obsolescence of information stemming from lag time in publication of this report.

Light Armored Vehicle (LAV). The MFR top priority is the procurement and fielding of 48 LAVs to equip two new Reserve Light Armored Reconnaissance (LAR) Companies created by FSRG 04. The FY 2005 Supplemental funded this requirement and the contract for production should be finalized in October 2005. Deliveries are slated to begin March 2007 and complete 3rd quarter FY 2008. In the interim, the current inventory of RC LAVs has been redistributed among the existing and new LAR Companies. RC LAR Companies were employed extensively during OIF-I combat operations and Phase IV Security and Stability Operations (SASO).



Marine LAV

LAV Product Improvement Program (PIP). The LAV PIP upgrades existing legacy LAV with new Automatic Fire Suppression Systems (AFSS), and Fleet Upgrade kits consisting of: power pack (engine, transmission, transfer case); turret drive system (gun); and vehicle suspension. If legacy LAVs are not upgraded, active and reserve forces will possess a mixed inventory of new production and legacy LAVs with different configurations and capabilities, resulting in operational and logistical challenges. The FY 2005 supplemental fully funds LAV PIP.

Initial Issue. Every Marine deploying into harm's way must be fully equipped with the most current Individual Clothing/Combat Equipment (ICCE). ICCE includes Small Arms Protective Insert (SAPI) plates, Outer Tactical Vests (OTVs), Light Weight Helmets, and

Improved Load Bearing Equipment packs (ILBEs). ICCE is being fielded concurrently to active and reserve forces, and every MFR Marine and Sailor deploying forward is outfitted with the latest safety and survivability equipment available. The RC has accumulated over \$30 million in initial issue individual and unit equipment shortages as a result of the Acquisition Objective not being fully funded in the Future Years Defense Program (FYDP), O&M appropriation. Shortfalls at CONUS-based units exist are being aggressively worked at all levels within the Marine Corps.

AN/PRC-148 Handheld Radio. The AN/PRC-148 is the Joint Tactical Radio System answer to the squad level radio. The AN-PRC-148 is a small handheld multi-band radio system, which will operate in secure frequency-hopping modes. It provides secure communications between the small unit leader and the next higher command. It is also ideal for intra-convoy communications since it has adequate range to cover the dispersion of a typical convoy, but does not require every vehicle in a convoy to be a radio vehicle. These radios are being employed in both OIF and OEF.



**AN/PRC-148
Handheld Radio**

Integrated Intra Squad Radio (IISR). The IISR is the Marine Corps response to the individual Marine's need for radio communications. This radio system provides enhanced small unit command and control by providing intra-squad/fire team communications. The IISR shortfall is 4,500.



**AN/PAS-13 Thermal
Weapon Sight**

Night Vision and Targeting Equipment. Systems such as the AN/PVS-17 Miniature Night Sight, the AN/PEQ-1B Ground Laser Target Designator, and the AN/PAS-13 Thermal Weapon Sight provide a distinct warfighting advantage for the Marine infantryman and those Marines required to conduct call for fire missions in theater. These systems allow for detection, tracking, and targeting of enemy positions for both small arms and precision guided munitions at extended ranges, greatly increasing the survivability of the Marine.

Training and Training Simulators. MFR is striving to incorporate the latest technology opportunities to create effective training and education opportunities for Reserve Marines to ensure their ability to effectively integrate with their active duty counterparts. Modernizing and fielding state-of-the-art training systems is part and parcel to this effort. Through NGREA, MFR procured two Medium Tactical Vehicle Replacement–Marine (MTVR-M) and one suite of four Virtual Combat Convoy Trainer–Marine (VCCT-M) simulation trainers.

As a result of the successes of MTVR-M and VCCT-M, MFR has embarked on the Training Centers of Excellence–Reserve (TraCER) initiative, aimed at establishing simulation training centers at strategically located sites throughout the continental United States. In addition to various simulation training systems, the concept involves the placement of Deployable Learning Resource Centers (DLRC) at every RTC.

Tactical Communications. One of the biggest challenges facing Marines in ongoing OIF operations is the ability to effectively communicate within a squad, convoy, patrol, or other independent unit. Modern communications systems, including the AN/PRC-148 Handheld Radio, the AN/PRC-150 High Frequency Radio, and the AN/PRC-117F Multiband Radio,

provide secure, interoperable communications within and between tactical units, as well as satellite communications capabilities for remotely operating units, such as the Civil Affairs Groups (CAGs) and the Air and Naval Gunfire Liaison Companies (ANGLICO) resident in the Marine Corps Reserve. To maintain connectivity with modern logistics systems, the Marine Corps Reserve needs the capability to communicate and operate with the Logistics Support Wide Area Network (LSWAN) and Command and Control On-the-Move Network, Digital Over-the-Horizon Relay (CONDOR).



AN/PRC-150 HF Radio

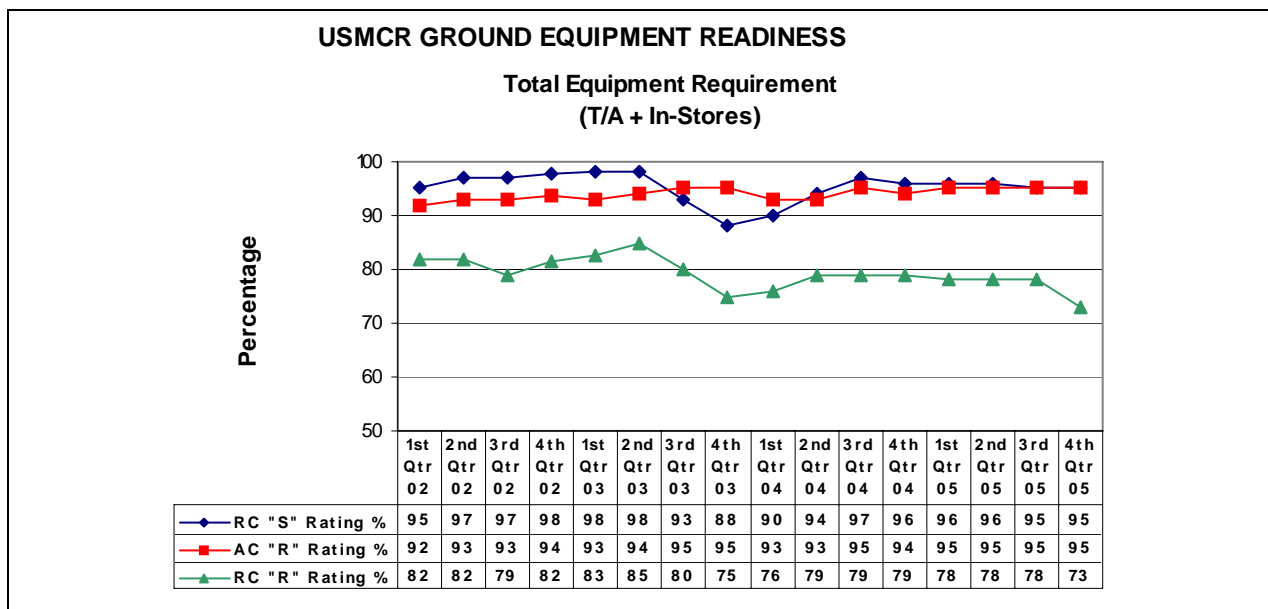


F-5 Tiger II

F-5 Tiger II Aircraft. The Marine Corps is replacing its 12 F-5E aircraft on a one-for-one basis with F-5N aircraft re-purchased from the government of Switzerland. On average, the USN/USMC F-5E aircraft have 7000 flight hours compared to the Swiss aircraft that average 2500 flight hours. Six legacy aircraft have been replaced with the remaining six to be replaced during FY 2006.

g. Overall Equipment Readiness

The general state of ground equipment readiness in the Marine Corps Reserve, as represented in the graph below, is good. RC equipment consists of the T/A, located at the RTCs and In-Stores assets held at MARCORLOGBASES. In order to better describe the state and readiness of the equipment, two variables are used. The Supply Equipment On-hand, or "S" rating, is the percentage of total on-hand and In-Stores equipment as compared to the total number authorized in the T/O&E. The Equipment Operational Capability, or "R" rating, is the total percentage of equipment on-hand or In-Stores that is mission capable. The RC's lower "R" rating is due to a combination of factors including: the age of legacy equipment, the impact of past funding shortfalls, and the lower priority of funding for maintenance. However, increased focus in preparation for OIF has led to some gains as demonstrated in the graph. The Marine Corps Reserve is prepared to augment the AC quickly and effectively as it demonstrated during OEF and OIF. However, these equipment issues must be rectified in order to maintain the desired level of Total Force readiness and interoperability.



B. Changes Since Last NGRER

The Marine Corps Reserve has experienced a number of force structure changes over the past twelve months, primarily stemming from the 2004 FSRG discussed earlier in the report. These actions include the following deactivations: VMFA-321, a reserve F/A-18 squadron formerly based at the Naval Air Facility Washington DC; 4th Low Altitude Air Defense, Pasadena, CA; 8th Tank Battalion Headquarters, Rochester, NY; B Co, 8th Tanks, Syracuse, NY; D Co, 8th Tanks, Columbia, SC; and Headquarters Battery and Lima Battery 4/14, Bessemer, AL.

Unit activations resulting from the 2004 FSRG include: Intelligence Support Battalion, headquartered in New Orleans, LA; Headquarters, Anti-Terrorism Battalion, Bessemer, AL; E Co, 4th LAR, Syracuse, NY; F Co, 4th LAR, Columbia, SC; and Personnel Retrieval and Processing Company, headquartered in Anacostia, MD. Additionally, over 1,000 new IMA billets were created at multiple sites throughout the United States.

In terms of changes in equipment, some RC helicopters and equipment were transferred between the AC and RC in order to ensure the most capable aircraft and equipment were provided to our forward deployed forces. Replacement plans generally call for this equipment to be returned or replaced upon completion of OEF/OIF.

C. Future Years Program (FY 2007–FY 2009)

1. FY 2009 Equipment Requirements

Table 1 provides projected FY 2009 major equipment inventories and requirements. MFR top priority is the procurement and fielding of 48 LAVs to equip two new Reserve Light Armored Reconnaissance (LAR) Companies.

2. Anticipated New Equipment Procurements



**High Mobility Artillery
Rocket System**

High Mobility Artillery Rocket System (HIMARS). HIMARS is a C-130 transportable, wheeled, indirect fire system capable of delivering all rockets and missiles in the current and future Multiple Launch Rocket System Family of Munitions. HIMARS extends the range of available fire support from 30 KM to 60+ KM. HIMARS is Post Milestone C and currently in Initial Low-Rate Production (LRIP). An interim HIMARS capability has been established with a RC unit: Fox Battery, 2nd Battalion, 14th Marines (F 2/14).



M777A1 Lightweight Howitzer. The Marine Corps will replace its aging M198 howitzers with the new M777A1 lightweight howitzer which completed operational testing in November 2004. The M777A1, through design innovation, navigation and positioning aides, and digital fire control offers significant improvements in lethality, survivability, mobility, and durability over the M198 howitzer. It can be lifted by the MV-22 and CH-53E helicopters and is paired with the Medium Tactical Vehicle Replacement truck for improved cross-country mobility. Low rate initial production delivery began December 2004 and a full rate production decision was made in February 2005. The AAO is 356 M777A1s with the Reserve portion of the AAO comprising 48. Full operational capability throughout the Marine Corps is planned for FY 2009.

3. Anticipated Transfers from AC to RC

Table 5 provides anticipated major equipment transfers from the AC to the RC.

4. Anticipated Withdrawals from RC Inventory

Table 5 provides anticipated major equipment to be decommissioned or withdrawn.

5. Remaining Major Shortages, Modernization Shortfalls at the End of FY 2009

Tables 1 and *8* provide equipment inventories, shortfalls, and modernization requirements for the Marine Corps Reserve.

D. Summary/Conclusions

The Marine Corps Reserve is ready, willing and able to answer the Nation's call to duty, as has been so well demonstrated by the mobilization and integration of Reserves into the AC. Our greatest asset is our outstanding young men and women in uniform, and it is critical they receive the equipment necessary to complete their missions. The Marine Corps and its Reserve is a model for Total Force integration and expeditionary capability. However, we can only forge

ahead to meet the high expectations of the American public with the continuing support of the Administration and the Congress.

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Table 1

Consolidated Major Item Inventory and Requirements

NOTE: This table provides a comprehensive list of selected major items of equipment. It provides the quantity on-hand (QTY O/H) projected to be in the inventory at the beginning/end of the selected fiscal year (FY). It also provides the quantity required (QTY REQ) needed to meet the full wartime requirements of the Reserve component. In accordance with Title 10, the QTY REQ number provides the recommendations as to the quantity and type of equipment which should be in the inventory of each Reserve component. Unit cost values are in dollars.

Nomenclature	Equip No.	FY 2007 Unit Cost	Begin FY 2007 QTY O/H	Begin FY 2008 QTY O/H	Begin FY 2009 QTY O/H	End FY 2009 QTY O/H	End FY 2009 QTY REQ
AIRCRAFT							
AIRCRAFT,HELICOPTER, UTILITY, UH-1N	UH-1N	6,588,000	20	20	20	20	20
AIRCRAFT,HELICOPTER, CARGO, CH-53E	CH-53E	35,734,000	21	21	21	21	21
AIRCRAFT,HELICOPTER, ATTACK, AH-1W	AH-1W	17,997,000	36	36	36	36	36
AIRCRAFT,HELICOPTER, CARGO, CH-46E	CH-46E	14,011,000	26	26	26	26	26
AIRCRAFT, REFUELING/CARGO, KC-130T	KC-130T	42,922,000	28	28	28	28	28
AIRCRAFT, UTILITY CARGO, UC-12B	UC-12B	4,318,000	2	2	2	2	2
AIRCRAFT,FIGHTER/ATTACK, F/A-18A	F/A-18A	49,710,000	36	36	36	36	36
AIRCRAFT, FIGHTER, F-5F	F-5F	14,068,000	1	1	1	1	1
AIRCRAFT, FIGHTER, F-5N	F-5N	10,624,000	12	12	12	12	12
AIRCRAFT, UTILITY CARGO, UC-35C/D	UC-35C/D	7,563,000	5	5	5	5	5
COMMUNICATIONS, OTHER							
AIRBORNE MOBILE DIRECT AIR SUPT CNTRL	A0010	684,949	2	2	2	2	2
MULTI-SOURCE CORRELATIONS SYS AN/TYQ-101	A0021	950,000	1	1	1	1	1
COMM DISTRIBUTION SYSTEM (CDS1)	A0023	6,000,000	1	1	1	1	1
COMMUNICATIONS PLATFORM, AIR DEFENSE	A0025	500,456	3	3	3	3	6
CENTRAL OFFICE, AUTO TELEPHONE AN/TTC-42(V)	A0248	1,750,000	11	11	11	11	11
DECODER GROUP, AN/UPA-60(V)2	A0465	29,837	21	21	21	21	21
DIGITAL TECHNICAL CONTROL (DTC) FACILITY, AN/TSQ-227	A0499	1,213,000	6	6	6	6	7
SATELLITE COMM TERMINAL, AN/TSC-96A	A0655	425,000	0	0	0	0	3
COMM CENTRAL, AIR SUPPORT SYS (CASC) AN/TSQ-207	A0821	500,000	2	2	2	2	6
INTEL OPS (IOS-INTEL) SERVER, AN/UYQ91(V)2	A0873	72,800	11	11	11	11	11
INTERROGATOR DIGITAL	A0880	91,611	8	8	8	8	9
MANPACK SATELLITE COMMUNICATIONS TERMINAL, AN/PSC-5	A0918	48,000	110	110	110	110	188
QUICK REACTION SATELLITE ANTENNA	A1310	225,000	2	2	2	2	3
RADAR SET, FIREFINDER, AN/TPQ-36(V)5	A1440	7,500,000	0	0	0	0	4
RADAR SET, LTWT AIR TRAFFIC CONTROL, AN/TPS-63B	A1500	999,000	0	0	0	0	6
RADAR SET, LW3D, AN/TPS-59(V)(3)	A1503	26,500,000	0	0	0	0	3
RADIO SET, AN/GRC-193B (V)	A1795	38,000	57	57	57	57	83

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Table 1

Consolidated Major Item Inventory and Requirements

Nomenclature	Equip No.	FY 2007 Unit Cost	Begin FY 2007 QTY O/H	Begin FY 2008 QTY O/H	Begin FY 2009 QTY O/H	End FY 2009 QTY O/H	End FY 2009 QTY REQ
RADIO SET, AN/GRC-171B	A1818	41,999	83	83	83	83	104
RADIO SET, AN/MRC-138B(V)	A1935	58,000	198	198	198	198	198
RADIO SET, AN/MRC.142B	A1954	289,603	1	1	1	1	1
RADIO TERMINAL SET, AN/MRC-142	A1955	218,193	67	67	67	67	71
RADIO SET, AN/MRC-145	A1957	42,689	337	337	337	337	339
RADIO SET, MANPACK, HF, AN/PRC-150	A2042	17,100	111	111	111	111	296
RADIO SET, AN/PRC-104 B(V)	A2065	14,663	599	599	599	599	599
RADIO SET, UHF, AN/PRC-113(V)3	A2069	8,529	0	0	0	0	329
RADIO SET, MANPACK, AN/PRC-119A	A2070	10,117	1,438	1,438	1,438	1,438	1,535
RADIO SET, VEHICULAR, AN/VRC-88D	A2074	11,475	34	374	374	374	507
RADIO SET, VEHICULAR, AN/VRC-89D	A2075	18,155	49	49	49	49	49
RADIO SET, VEHICULAR, AN/VRC-90D	A2076	12,000	14	14	14	14	14
RADIO SET, VEHICULAR, AN/VRC-91D	A2077	18,680	48	48	48	48	48
RADIO SET, VEHICULAR, AN/VRC-92D	A2078	20,920	31	31	31	31	31
RADIO SET, MANPACK, AN/PRC-119F	A2079	4,422	579	579	579	597	645
RADIO SET, VEHICULAR, AN/VRC-83(V)2	A2164	18,360	129	129	129	129	157
RADIO SET, VEHICULAR, AN/VRC-88A	A2167	12,519	475	475	475	475	509
RADIO SET, VEHICULAR, AN/VRC-89A	A2168	16,609	79	79	79	79	79
RADIO SET, VEHICULAR, AN/VRC-90A	A2169	9,886	104	104	104	104	141
RADIO SET, VEHICULAR, AN/VRC-102	A2173	40,280	14	14	14	14	17
RADIO TERMINAL, AN/TRC-170	A2179	10,000	24	24	24	24	24
FACILITY, ANTI-AIR WARFARE, SECTOR, AN/TYQ-87	A2390	210,000	2	2	2	2	3
SWITCHBOARD, TELEPHONE, SB-3614	A2505	46,696	73	73	73	73	75
SWITCHING UNIT, TELEPHONE, SB-3865	A2508	500,000	67	67	67	67	67
TACTICAL AIR OPERATIONS MODULE (TAOM)	A2525	8,100,000	6	6	6	6	9
TACTICAL (GATEWAY) DATA NETWORK	A2535	428,507	7	7	7	7	7
FIRE SUPPORT, MOBILE TDS AN/GYK-47(V)6	A2542	44,746	57	57	57	57	57
FIRE SUPPORT, MOBILE TDS AN/GYK-47(V)7	A2545	44,746	94	94	94	94	136
TACTICAL COMMAND SYSTEM, AN/USC-55A	A2551	311,000	3	3	3	3	4
TACTICAL SATCOM, TRANSPORTABLE (SMART-T), AN/TSC-15	A3232	672,000	4	4	4	4	6
COMM INTERFACE SYSTEM, AN/MRQ-12	A3270	501,649	3	3	3	3	7
ENGINEER & OTHER EQUIPMENT							
AIR CONDITIONER, MCS HORIZONTAL, 60HZ 9,000 BTU	B0001	4,126	0	0	0	0	44
AIR CONDITIONER, MCS HORIZONTAL, 60HZ 18,000 BT	B0002	5,356	57	57	57	57	64
AIR CONDITIONER, MCS, 60,000 BTU	B0007	9,040	23	23	23	23	36
AIR CONDITIONER, MCS, SKID MOUNTED	B0011	3,998	28	28	28	28	59
AIR CONDITIONER, 60/400HZ, 18,000 BTU	B0012	4,391	203	203	203	203	237
BOAT, BRIDGE ERECTION, USCSBMK2	B0114	170,000	4	4	4	4	20

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Table 1

Consolidated Major Item Inventory and Requirements

Nomenclature	Equip No.	FY 2007 Unit Cost	Begin FY 2007 QTY O/H	Begin FY 2008 QTY O/H	Begin FY 2009 QTY O/H	End FY 2009 QTY O/H	End FY 2009 QTY REQ
BRIDGE ERECTION SET (MGB)	B0120	640,000	3	3	3	3	6
BRIDGE, MEDIUM GIRDER, DRY GAP	B0152	1,200,000	4	4	4	4	12
BRIDGE, FLOATING, RIBBON, 70T	B0155	871,200	3	3	3	3	6
CONTAINER HANDLER, ROUGH TERRAIN, 50,000 LB	B0391	600,000	4	4	4	4	11
CRANE, HIGH SPEED, HIGH MOBILITY	B0443	375,000	14	14	14	14	23
CRANE, ROUGH TERRAIN, HYDRAULIC LIGHT	B0446	225,000	44	44	44	44	59
EXCAVATOR, COMBAT, M9 ACE	B0589	850,000	8	8	8	8	21
FUEL DISPENSING SYSTEM, TACTICAL AIRFIELD	B0675	386,481	0	0	0	0	3
GENERATOR SET, 3 KW, 60 HZ, SKID-MOUNTED	B0730	9,205	294	294	294	294	294
GENERATOR SET, SKID-MTD, TACT QUIET, 10 KW 60 H	B0891	10,280	195	195	195	195	318
GENERATOR SET, SKID-MTD, TACT QUIET, 10 KW 400	B0921	16,894	8	8	8	8	8
GENERATOR SET, SKID-MTD, TACT QUIET, 30 KW 60 H	B0953	25,156	198	198	198	198	252
GENERATOR SET, SKID-MTD, TACT QUIET, 30 KW 400	B0971	26,208	4	4	4	4	4
GENERATOR SET, SKID-MTD, TACT QUIET, 60 KW 400	B1016	28,414	20	20	20	20	24
GENERATOR SET, SKID-MTD, TACT QUIET, 60 KW 60 H	B1021	28,908	91	91	91	91	166
GRADER, ROAD, MOTORIZED	B1082	190,000	20	20	20	20	20
HELICOPTER EXPEDIENT REFUELING SYSTEM (HERS)	B1135	112,049	3	3	3	3	3
LIGHTWEIGHT DECONTAMINATING SYSTEM	B1291	16,283	28	28	28	28	251
LINE CHARGE LAUNCH KIT, TLR MTD	B1298	17,000	0	0	0	0	50
PUMP MODULE, FUEL (SIXCON)	B1580	41,000	59	59	59	59	120
SCRAPER-TRACTOR, WHEELED	B1922	400,000	12	12	12	12	12
STORAGE TANK MODULE, FUEL (SIXCON)	B2085	10,100	145	145	145	145	391
SWEEPER, ROTARY, VEHICLE MTD	B2127	165,000	5	5	5	5	6
TRACTOR, FULL TRACKED, W/ANGLE BLADE	B2460	95,000	27	27	27	27	31
TRACTOR, MEDIUM, FULL TRACKED, D7G	B2462	325,000	41	41	41	41	58
TRACTOR, ALL WHEEL DRIVE, FLU-419	B2482	129,000	11	11	11	11	25
LOADER, BACKHOE, CAT420D	B2483	78,018	30	30	30	30	30
TRUCK, FORKLIFT, EXTENDABLE BOOM	B2561	96,146	108	108	108	108	108
TRUCK, FORKLIFT, ROUGH TERRAIN, 4,000 LB	B2566	43,250	77	77	77	77	97
TRACTOR, ROUGH TERRAIN, ARTICULATED STEER	B2567	192,000	93	93	93	93	105
WATER PURIFICATION UNIT - REVERSE OSMOSIS	B2604	387,000	14	14	14	14	63
TACTICAL VEHICLES							
TRUCK, CARGO, 7-TON 6x6, MTVR	D0198	133,900	786	786	786	786	963

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Table 1

Consolidated Major Item Inventory and Requirements

Nomenclature	Equip No.	FY 2007 Unit Cost	Begin FY 2007 QTY O/H	Begin FY 2008 QTY O/H	Begin FY 2009 QTY O/H	End FY 2009 QTY O/H	End FY 2009 QTY REQ
POWER UNIT, FRONT, 12 1/2 TON, 4X4, MK48	D0209	189,000	153	153	153	153	153
TRUCK, AVIATION REFUELER CAPABILITY	D0210	176,000	9	9	9	9	9
SEMI-TRAILER, REFUELER, 5,000 GAL	D0215	98,064	8	8	8	8	50
SEMI-TRAILER, LOWBED, 40 TON, M870	D0235	46,902	46	46	46	46	53
TRAILER, POWERED, 22 1/2 T, CONTAINER HAULER, 4X4	D0876	72,837	90	90	90	90	235
TRAILER, POWERED, WRECKER/RECOVERY	D0877	205,342	13	13	13	13	16
TRAILER, 5TH-WHL 4X4, SEMI-TRLR ADAPTER	D0878	88,801	39	39	39	39	39
TRAILER, 20 TON 4X4 CARGO W/CRANE, MK17	D0879	134,794	20	20	20	20	73
TRAILER, TANK, WATER, 400 GAL, 1 1/2 TON 2-WHL	D0880	12,955	269	269	269	269	269
TRAILER, RIBBON BRIDGE, MK18	D0881	123,759	36	36	36	36	36
TRUCK, AMB, 4 LITTER ARMD, HMMWV, M997	D1001	107,323	97	97	97	97	97
TRUCK, AMB, 2 LITTER, SOFT TOP, HMMWV, M1035	D1002	61,520	46	46	46	46	46
TRUCK, CARGO, 5 TON, 6X6, W/O WINCH	D1059	155,000	6	6	0	0	0
TRUCK, 7-TON LONG BED, MTRV, M927/M928	D1062	138,064	115	115	115	115	115
TRUCK, AIRCRAFT CRASH & STRUCTURE FIRE FIGHTING	D1064	240,000	10	10	10	10	18
TRUCK, DUMP, M817/M929/M930	D1072	192,000	60	60	0	0	0
TRUCK, TOW CARRIER, HMMWV, M1045/M1046	D1125	73,729	187	187	187	187	222
TRUCK, TRACTOR, 5 TON, 6X6, M818/M931	D1134	160,000	16	16	0	0	0
TRUCK, UTILITY, CARGO, HMMWV, M998	D1158	50,778	1,576	1,576	1,576	1,576	1,631
TRUCK, ARMT CARR, HMMWV, M1043/M1044	D1159	72,113	331	331	331	331	354
TRUCK, SHELTER CARRIER, HMMWV, M1037/M1042	D1180	50,778	38	38	38	38	38
TRUCK, WRECKER, 7 TON, M816/M936	D1212	400,000	43	43	0	0	0
TRUCK, WRECKER, MK-36, MTRV	D1213	373,539	32	32	32	32	50
LAV, ANTI-TANK, LAV-AT	E0942	1,352,000	16	16	16	16	16
LAV, COMMAND AND CONTROL, LAV-C2	E0946	1,200,000	8	8	8	8	8
LAV, LIGHT ASSAULT, 25MM, LAV-25	E0947	2,500,000	60	60	60	60	60
LAV, LOGISTICS, LAV-L	E0948	1,040,000	16	16	16	16	16
LAV, MORTAR, LAV-M	E0949	1,200,000	8	8	8	8	8
LAV, MAINT/RECOVERY, LAV-R	E0950	1,200,000	6	6	6	6	6
TRACKED COMBAT VEHICLES							
BRIDGE, SCISSOR FOR AVL	E0149	155,863	2	2	2	2	6
BRIDGE, ARMORED VEHICLE LAUNCHED	E0150	592,545	4	4	4	4	6
ASSAULT AMPHIBIOUS VEHICLE, COMMAND	E0796	525,000	7	7	7	7	10
ASSAULT AMPHIBIOUS VEHICLE, PERSONNEL	E0846	525,000	73	73	73	73	103
ASSAULT AMPHIBIOUS VEHICLE, RECOVERY	E0856	525,000	6	6	6	6	8

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Table 1

Consolidated Major Item Inventory and Requirements

Nomenclature	Equip No.	FY 2007 Unit Cost	Begin FY 2007 QTY O/H	Begin FY 2008 QTY O/H	Begin FY 2009 QTY O/H	End FY 2009 QTY O/H	End FY 2009 QTY REQ
RECOVERY VEHICLE FT HEAVY, W/EQUIP M88A2	E1378	2,200,000	9	9	9	9	9
TANK, COMBAT, FT, 120MM GUN, M1A1	E1888	1,200,000	31	31	31	31	48
WEAPONS							
CIRCLE, AIMING, M2A2	E0180	2,612	139	139	139	139	139
COMMAND LAUNCH UNIT, JAVELIN, M98A1	E0207	250,000	64	64	64	64	72
DATA DISPLAY GROUP, OD144(V)	E0277	9,776	101	101	101	101	101
EQUIPMENT SET, NIGHT VISION, AN/UAS-12	E0330	54,000	216	216	216	216	242
HOWITZER, MEDIUM, TOWED, 155MM	E0665	1,032,337	84	84	84	84	84
INTERROGATOR SET, PROGRAMMER (STINGER)	E0726	19,121	18	18	18	18	18
INTERROGATOR SET, IFF (STINGER)	E0727	18,115	180	180	180	180	180
LAUNCHER, ASSAULT ROCKET, 83MM (SMAW)	E0915	10,299	234	234	234	234	234
LAUNCHER, TUBULAR, F/GM TOW WEAPON SYSTEM	E0935	173,500	0	0	0	0	240
MACHINE GUN, CAL .50, BROWNING, HB FLEXIBLE	E0980	16,575	528	528	528	528	528
MACHINE GUN, MEDIUM, 7.62MM, GROUND VERSION	E0989	8,000	823	823	823	823	823
MACHINE GUN, 40MM	E0994	18,590	316	316	316	316	513
METEOROLOGICAL STATION GROUP	E1035	520,000	5	5	5	5	5
MULE, AN/PAQ-3	E1045	500,032	75	75	75	75	121
MORTAR, 60MM, M224	E1065	55,879	81	81	81	81	81
MORTAR, 81MM, M252	E1095	121,855	80	80	80	80	80
MUZZLE VELOCITY SYSTEM (M94)	E1145	14,500	30	30	30	30	30
NIGHT VISION SIGHT, CREW SERVED WEAPON	E1159	3,500	339	339	339	339	468
POSITION AZIMUTH DETERMINATION SYS(PADS)	E1210	417,826	18	18	18	18	18
RIFLE, SNIPER, 7.62MM	E1460	3,114	95	95	95	95	116
RIFLE, SNIPER, SEMI-AUTO, CAL .50	E1475	6,405	34	34	34	34	36
RECEIVER, INFRARED, AN/PAS-18	E1837	24,068	109	109	109	109	109
TEST EQUIPMENT							
TANK, COMBAT, FT, 120MM GUN, M1A1	E1888	1,200,000	31	31	31	31	48
TEST SET, MISSILE GUIDANCE	E1911	20,366	38	38	38	38	38
FIELD TEST SET, TOW, AN/TSM-140B	E1912	393,562	38	38	38	38	38

USMCR Average Age of Equipment

Table 2

<i>NOTE: This table provides the average age of selected major items of equipment. The average age provides a projected average age of the fleet at the start of FY 2006.</i>			
Nomenclature	Equip No.	Average Age	Remarks
AIRCRAFT, HELICOPTER, UTILITY, UH-1N	UH-1N	34	
AIRCRAFT, HELICOPTER, ATTACK, AH-1W	AH-1W	12	
AIRCRAFT, HELICOPTER, CARGO, CH-53E	CH-53E	17	
AIRCRAFT, HELICOPTER, CARGO, CH-46E	CH-46E	38	
AIRCRAFT, REFUELING/CARGO, KC-130T	KC-130T	19	
AIRCRAFT, FIGHTER/ATTACK, F/A-18A	F/A-18A	21	
AIRCRAFT, FIGHTER, F-5E	F-5E	32	Being replaced by F-5N
AIRCRAFT, FIGHTER, F-5F	F-5F	29	
AIRCRAFT, FIGHTER, F-5N	F-5N	29	Replaces the F-5E; 6 received approximately 2500 flight hours per frame
AIRCRAFT, UTILITY/CARGO, UC-12B	UC-12B	24	
AIRCRAFT, UTILITY/CARGO, UC-35C	UC-35C	7	
AIRCRAFT, UTILITY/CARGO, UC-35D	UC-35D	4	
AIRCRAFT REFUELER	D0215	23	2/3 of equipment will be 29 yrs old. Remaining 1/3 will be 10 yrs old by 2004.
RADIO SET MRC-138B	A1935	24	
RADIO TERMINAL TROPOSCATTER DIGITAL AN/TRC-170	A2179	14	
WATER PURIFICATION UNIT - REVERSE OSMOSIS	B2604	21	Being replaced with the TWPS (IOC 2005, FOC 2008)
CRANE, HIGH SPEED, HIGH MOB, W/PILE DRIVER CAP	B0443	18	
LAV, LIGHT ASSAULT VEHICLE, 25MM	E0947	19	SLEP scheduled to occur between FY05-09
TRUCK, LVS	D0209	20	Being replaced with LVS (IOC 2009, FOC 2011)
TRUCK, 5-TON	D1059	23	Being replaced with the Medium Tactical Vehicle (MTVR) (IOC 2001, FOC 2005)
TRUCK, HMMWV	D1158	14	Being replaced with the HMMWVA2 (IOC 1999, FOC 2010)
ASSAULT AMPHIBIOUS VEHICLE, PERSONNEL	E0846	33	Being replaced with the AAHV (IOC 2010, FOC 2020), RAMRS program will help improve fleet reliability (FY99-02), Last Service Life Extension Program (SLEP) occurred between 1982-1986. New SLEP scheduled for FY06-17.
TANK, COMBAT, 120MM	E1888	16	
HOWITZER, MEDIUM, TOWED 155MM	E0665	23	Being replaced with the Lightweight 155MM Howitzer (LW155) (IOC 2005, FOC 2008)

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Table 3

Service Procurement Program - Reserve (P-1R)

NOTE: This table identifies the dollar value of equipment programmed to be procured with Service procurement funds as identified in the P-1R exhibit of the FY 2007 President's Budget Submission. All values are costs in dollars, and ammunition procurements have been excluded. Deliveries of procured equipment normally take one to two years before they arrive in the inventory; e.g., items procured in FY 2007 would be expected to arrive in RC inventories in FY 2008 or FY 2009.

Nomenclature	FY 2007	FY 2008	FY 2009	Remarks
WEAPONS AND COMBAT VEHICLES				
AAV7A1 PIP	1,615,000	1,403,000	1,224,000	
155MM LIGHTWEIGHT TOWED HOWITZER	2,775,000	92,770,000		
HIGH MOBILITY ARTILLERY ROCKET SYSTEM	57,524,000	2,022,000		
MODIFICATION KITS	2,857,000	408,000	397,000	
WEAPONS ENHANCEMENT PROGRAM	125,000	317,000	324,000	
COMMUNICATIONS AND ELECTRONICS EQUIPMENT				
REPAIR AND TEST EQUIPMENT	1,784,000	1,832,000	1,854,000	
MODIFICATION KITS	264,000	267,000	269,000	
ITEMS UNDER \$5M (COMM & ELEC)	701,000	738,000	589,000	
AIR OPERATIONS C2 SYSTEMS	583,000	1,708,000	8,899,000	
INTELLIGENCE SUPPORT EQUIPMENT	208,000		249,000	
COMMAND POST SYSTEMS	1,907,000	445,000		
RADIO SYSTEMS			2,612,000	
COMM SWITCHING & CONTROL SYSTEMS	7,419,000	8,353,000	185,000	
SUPPORT VEHICLES				
5/4T TRUCK HMMWV (MYP)	27,161,000	53,687,000	109,733,000	
OTHER SUPPORT - ITEMS LESS THAN \$5M	183,000	184,000	185,000	
ENGINEER AND OTHER EQUIPMENT				
ENVIRONMENTAL CONTROL EQUIP ASSORT	718,000	3,284,000	2,540,000	
BULK LIQUID EQUIPMENT	6,281,000	30,000	30,000	
TACTICAL FUEL SYSTEMS	786,000	802,000	811,000	
POWER EQUIPMENT ASSORTED	1,348,000	1,434,000	1,465,000	
AMPHIBIOUS SUPPORT EQUIPMENT	1,354,000	117,000		
MATERIAL HANDLING EQUIP	2,331,000	7,631,000	6,873,000	
TRAINING DEVICES	413,000		525,000	
CONTAINER FAMILY	632,000	644,000	567,000	
FAMILY OF CONSTRUCTION EQUIPMENT	1,329,000	8,555,000	7,013,000	
OTHER SUPPORT - ITEMS LESS THAN \$5M	113,000	116,000	118,000	
TOTAL	\$120,411,000	\$186,747,000	\$146,462,000	

National Guard and Reserve Equipment Appropriation (NGREA) Procurements

NOTE: This table identifies the dollar value of equipment originally programmed to be procured with the National Guard and Reserve Equipment Appropriation (NGREA). These funds are available for a three-year period from the year of appropriation. Deliveries of procured equipment normally take one to two years from date of procurement before they arrive in the inventory; e.g., items procured in FY 2007 would be expected to arrive in RC inventories in FY 2008 or FY 2009. All values are costs in dollars.

Nomenclature	FY 2004	FY 2005	FY 2006	Remarks
AH-1W ELECTRONIC WARFARE SUITE (AFC 230)	7,830,000			
COMBAT VEHICLE TRAINING SYSTEM	4,185,436			
1993 NGREA KC-130 CANCELLED ACCOUNT BILL	3,441,000			
AIRCRAFT INDIVIDUAL MATERIEL READINESS LIST EQUIPMENT	2,053,616			
SMART-T AN/TSC-154	1,600,000			
ALTERNATIVE POWER SOURCE PACKAGE	1,411,350			
DIGITAL COMBAT OPERATIONS CENTER CAPABILITY	1,159,200			
TRUSTED SYSTEMS SECURITY CONTAINER	910,000			
AUTOMOTIVE BATTERY MAINTENANCE PACKAGE	792,860			
KC-130T ELECTRONIC FLIGHT INSTRUMENT	700,000			
RESERVE AUTOMATED SUPPORT SYSTEM (RASS)	619,450			
KC-130T NIGHT VISION LIGHTING KIT	550,000			
NON-LETHAL WEAPONS KIT - LARGE	364,566			
EPLRS RADIOS (AN/VSQ-2C)	300,000			
RT-1523B AN/PRC-119F	268,080			
NON-LETHAL WEAPONS KIT - SMALL	123,600			
SECURE IRIDIUM SATELLITE PHONES	96,000			
AN/PAS-13 THERMAL WEAPON SIGHT	5,952,108	1,700,000		
AN/PVS-17B MINIATURE NIGHT SIGHT	4,655,334	270,360		
AN/PRC-150C HIGH FREQUENCY MANPACK RADIO	2,250,000	1,512,450		
AN/PVS-17C MINIATURE NIGHT SIGHT	1,813,500	282,660		
KC-130T ARC-210 SATCOM RADIO	1,480,000	144,814		
AN/PRC-117 SATCOM RADIO	1,120,000	4,544,100		
EMBARKATION MOBILIZATION BOXES	990,000	550,000		
GLTD II TARGET LASER DESIGNATOR II (AN/PEQ-1B)		4,306,200		
AH-1W AIRCRAFT SURVIVABILITY EQUIPMENT		3,200,000		
INDOOR SIMULATED MARKSMANSHIP TRAINER - ENHANCED		2,600,000		
CH-53E HELICOPTER NIGHT VISION SYSTEMS (HNVS) B KITS		2,200,000		
MARINE CORPS RESERVE INFORMATION SURVIVABILITY PROJECT (MCRISP)		2,157,506		

National Guard and Reserve Equipment Appropriation (NGREA) Procurements

Nomenclature	FY 2004	FY 2005	FY 2006	Remarks
CH-46 HELICOPTER LIGHT WEIGHT SEATS & ARMOR		2,028,000		
DIGITAL COMBAT OPERATIONS CENTER POWER SUPPORT		1,800,000		
MARINE LOGISTICS COMMAND SUPPORT PACKAGE		1,752,995		
XTS-5000 DIGITAL PORTABLE RADIO EQUIPMENT		1,680,000		
AN/GRC-239 TROPO SATELLITE SUPPORT RADIO (TSSR)		1,400,000		
VIIGP LONG RANGE THERMAL IMAGER, SOPHIE		1,218,050		
LSA ADAPTOR		1,053,978		
TA-31F ADVANCED COMBAT OPTICAL GUNSIGHT (ACOG) 4X32 RIFLE SCOPE		881,250		
LINK 16 MANAGEMENT SYSTEM (LMS-16)		762,695		
AIR RESCUE FIRE FIGHTING (ARFF) EQUIPMENT		725,712		
VECTOR 21 (VIPER LCH-41 REPLACEMENT)		717,453		
MARINE LOGISTICS OPERATIONS CENTER POWER SUPPORT		600,000		
STOMP II MEDICAL KIT PACK		529,344		
EMBARKATION ENABLERS		447,720		
AN/VRC-103 RADIO VEHICLE MOUNTS		400,000		
AN/PRC-150C HIGH FREQUENCY MANPACK RADIO REMOTE KITS		320,000		
PROMINA 400/800		282,940		
PALLETIZED CONTAINERS (PALCON)		254,320		
EPLRS SUPPORT PACKAGE		237,671		
INTELLIGENCE OPERATIONS SYSTEM V2		218,400		
AN/PVS-7D NIGHT VISION DEVICE		166,650		
AN/PVS-14 NIGHT VISION DEVICE		90,425		
DATA COMMUNICATIONS NETWORK TOOLBOX		84,000		
DEHUMIDIFICATION SYSTEM		64,730		
M4 INMARSAT TERMINAL		37,464		
VIRTUAL COMBAT CONVOY TRAINER		5,300,000	6,533,332	
INTEGRATED INTRA-SQUAD RADIO (IISR)		993,166	2,592,500	
ALTERNATE POWER SUPPLY (DIVISION)		523,000	1,130,000	
COUNTERINTELLIGENCE HUMINT EQUIPMENT SUITE (CIHEP)		507,945	160,000	
MEDIUM TACTICAL VEHICLE REPLACEMENT - TRAINING SYSTEM		350,000	398,000	
AN/PRC-148 HANDHELD RADIO		320,000	1,042,500	
6TH COMMUNICATION BATTALION PACKAGE		206,140	668,000	

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Table 4

National Guard and Reserve Equipment Appropriation (NGREA) Procurements

Nomenclature	FY 2004	FY 2005	FY 2006	Remarks
MARINE EXPEDITIONARY POWER DISTRIBUTION SYSTEM		200,000	1,000,000	
DEFENSE ADVANCED GPS RECEIVER		177,600	219,141	
M4 CARBINE		15,262	150,075	
COMBAT VEHICLE TRAINING SIMULATOR			3,980,000	
MARINE LOGISTICS COMMAND COMM PACKAGE			3,702,000	
TACTICAL DATA NETWORK TRAINING SOLUTIONS PACKAGE			3,300,000	
GROUND LASER TARGET DESIGNATOR			2,856,000	
ENVIRONMENTAL CONTROL UNIT			1,104,000	
ALTERNATE POWER SUPPLY (FORCE)			592,000	
IN-TRANSIT VISIBILITY MANAGEMENT PACKAGE			170,000	
TOTAL	\$44,666,100	\$49,815,000	\$29,597,548	

Projected Equipment Transfer/Withdrawal Quantities

NOTE: This table portrays the planned equipment transfers (Active to Reserve), withdrawals (-), and decommissioning (-). Transferred equipment is commonly called "cascaded equipment," or equipment that is provided to the RC once the Active receives more modern equipment. Although this table highlights a three-year period, many Services will not know exact quantities of transfers or withdrawals until year of execution, due to the uncertainty of the procurement/delivery cycle of new equipment.

Nomenclature	Equip No.	FY 2007 Qty	FY 2008 Qty	FY 2009 Qty	Remarks
<p>Service has no planned transfers or withdrawals for the years FY 2007 thru FY 2009</p>					

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Table 6

FY 2003 Planned vs Actual Procurements and Transfers

NOTE: This table compares what the Service planned to procure and transfer to the RC in FY 2003 with actual procurements and transfers. FY 2003 is selected as these are the most recent funds to expire. Since the procurement cycle is normally one to two years from funding to delivery, this table identifies only what has been delivered through the end of FY 2005. Procurement and NGREA columns reflect cost values in dollars.

Nomenclature	Equip No.	FY 2003 Transfers (# of items)		FY 2003 Procurements (\$s)		FY 2003 NGREA (\$s)	
		Plan	Actual	Plan	Actual	Plan	Actual
UC-35C CESSNA CITATION	UC-35C	1	0				
C-20G GULFSTREAM IV	C-20G	1	-1				
AAV7A1 PIP				200,000	197,000		
LAV PIP				0	6,804,000		
IMPROVED RECOVERY VEHICLE				500,000	0		
MOD KITS TRACKED VEHICLES				600,000	0		
HIMARS				7,900,000	7,791,000		
LT WT 155MM TOWED HOW				17,500,000	0		
MOD KITS ARTY AND OTHER				300,000	310,000		
MARINE ENHANCEMENT PROGRAM				600,000	617,000		
MODULAR WEAPON SYSTEM				0	1,426,000		
PREDATOR				300,000	532,000		
GENERAL PURPOSE ELEC TEST EQUIP				1,400,000	1,058,000		
INTELLIGENCE SUPPORT EQUIPMENT				300,000	247,000		
MOD KITS INTEL				300,000	0		
GENERAL PURPOSE MECHANICAL TMDE				800,000	745,000		
RADIO SYSTEMS				100,000	0		
ITEMS UNDER \$5 MILLION (COMM & ELEC)				0	537,000		
MOD KITS MAGTF C4I				1,000,000	781,000		
AIR OPERATIONS C2 SYSTEMS				200,000	197,000		
INTELLIGENCE C2 SYSTEMS				2,000,000	524,000		
MEDIUM TACTICAL VEH REPLACEMENT				197,100,000	150,294,000		
ITEMS LESS THAN \$5 MILLION (OTHER SUPPORT)				0	187,000		
ENVIRONMENTAL CONTROL EQUIPMENT				300,000	324,000		
BULK LIQUID EQUIPMENT				100,000	146,000		
TACTICAL FUEL SYSTEM				300,000	308,000		
POWER EQUIPMENT				700,000	686,000		
AMPHIBIOUS RAID EQUIPMENT				100,000	114,000		
MATERIEL HANDLING EQUIPMENT				8,500,000	0		
FIELD MEDICAL EQUIPMENT				1,400,000	1,373,000		
653200 TRAINING DEVICES				4,100,000	3,972,000		
654300 CONTAINER FAMILY				600,000	603,000		
654400 FAMILY OF CONSTRUCTION EQUIP				3,200,000	3,180,000		

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Table 6

FY 2003 Planned vs Actual Procurements and Transfers

Nomenclature	Equip No.	FY 2003 Transfers (# of items)		FY 2003 Procurements (\$s)		FY 2003 NGREA (\$s)	
		Plan	Actual	Plan	Actual	Plan	Actual
661300 RAPID DEPLOYABLE KITCHEN				1,700,000	1,649,000		
667000 ITEMS UNDER \$5 MILLION				1,600,000	0		
KC-130T COCKPIT ARMOR/LOX BOTTLE ARMOR PLATING						1,740,000	817,760
KC-130T OIL COOLER AUGMENTATION/AIRCRAFT RETROFIT						2,000,000	2,000,000
KC-130T NIGHT VISION INTERIM LIGHTING PACKAGE						862,000	862,000
RESERVE AUTOMATED SUPPORT SYSTEM (RASS)						900,000	900,000
VDC-400/500 MODEMS AND IP ROUTING BRIDGES						168,000	168,000
HANDHELD RADIO EQUIPMENT (PRC-148)						814,000	814,000
HIGH FREQUENCY MANPOWER RADIO (AN/PRC-150)						400,000	400,000
COMMERCIAL EMBARKATION BOXES						513,900	513,900
QUAD CONTAINER						708,000	708,000
EMBARKATION PALCON						578,000	578,000
ALTERNATE POWER EQUIPMENT						1,018,000	1,018,000
KG-175 ALTERNATE POWER EQUIPMENT						242,000	242,000
TOTAL				\$253,700,000	\$184,602,000	\$9,943,900	\$9,021,660

Major Item of Equipment Substitution List

NOTE: This table identifies equipment authorized by the Service to be used as a substitute for a primary item of equipment. The table also identifies whether or not the item is able to be deployed in wartime. This data meets the Title 10 requirement to identify equipment that is not the most desired item of equipment.

Required Item Nomenclature	Reqd Item Equip No.	Substitute Item Nomenclature	Substitute Item Equip No.	FY 2007 Qty	Deployable?	
					Yes	No

**Service Does Not Use Substitution To Satisfy
Major Item Equipment Requirements**

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Significant Major Item Shortages

Table 8

NOTE: This table provides an RC top ten prioritized (PR) shortage list for major items of equipment required for wartime missions but which are currently not funded in the FYDP. It lists the total quantity required, the total unfunded requirement, the individual item cost, and the cost of the unfunded portion. This data is consistent with other unfunded data submitted by the Service.

PR	Nomenclature	Total Req'd	# Items Short	Item Cost	Total Shortage Cost	Rationale/ Justification
1	Light Armored Vehicles	114	48	Various	93,000,000	FSRG
2	Initial Issue (e.g. APECS, E-tool, APES, ILBE, LW Helmet, OTV, SAPI, Gas Mask) **	Various	Various	Various	35,096,050	OIF III/GWOT
3	AN/PRC-148 Handheld Radio	2,776	1,896	8,000	15,168,000	OIF III/GWOT
4	Integrated Intasquad Radio (IISR)	8,500	4,500	650	2,925,000	OIF III/GWOT
5	Defense Advanced GPS Reciever	867	350	2,510	878,500	OIF III/GWOT
6	Transit Case Technical Control	2	2	400,000	800,000	OIF III/GWOT
7	RedComm Switch	2	2	150,000	300,000	OIF III/GWOT
8	Tropo Satellite Support Radio AN/GRC-239	37	15	78,000	1,170,000	OIF III/GWOT
9	Switched Multiplexer Unit (SMU)	2	2	1,050,000	2,100,000	OIF III/GWOT
10	Virtual Combat Convoy Trainer	5	4	5,500,000	22,000,000	OIF III/GWOT

** These Initial Issue items are Operations and Maintenance funded items.

Chapter 4 United States Navy Reserve

I. Navy Overview

A. Overview of Navy Planning Guidance

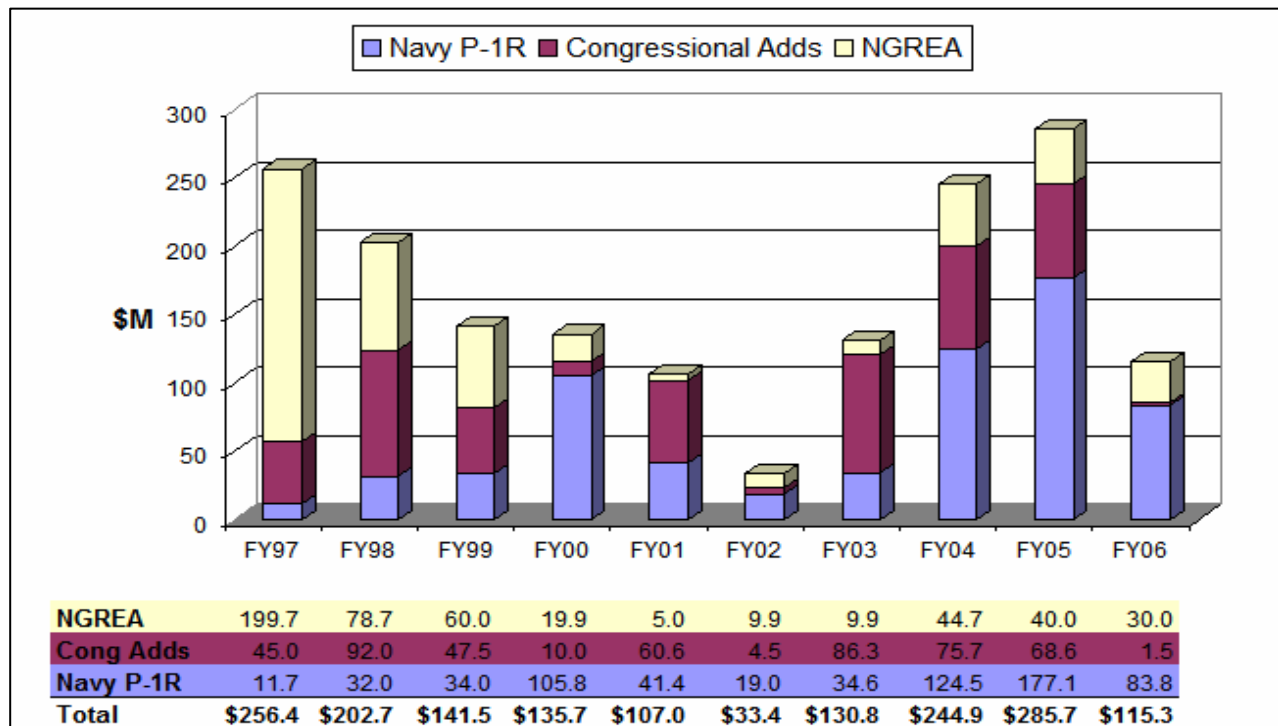
The Navy mission is to provide combat-ready Naval Forces capable of winning wars, deterring aggression, preserving freedom of the seas, and promoting peace and security. CNO Guidance for 2006 states, “We must continue to transform, recapitalize and modernize our Navy. With our partners in the Secretariat, industry, the acquisitions community, OSD, and the interagency—and with the continuing support of Congress—the Navy will begin to build today a force that is properly sized, balanced and priced for tomorrow.”

B. Navy Equipping Policy

Navy policy is that units will be equipped to accomplish all assigned missions and will have an equipment and distribution program that is balanced, responsive to mission requirements, and sustainable. The priority for distribution of new and combat serviceable equipment, with associated support and test equipment will be given to units scheduled to be deployed/employed first. Equipment priorities for RC units are established using the same methodology as AC units that have the same mobilization mission or deployment requirements.

Navy’s overriding goal is to establish and maintain a seamless and fully integrated Total Force. Navy Resource Sponsors, as part of the Navy’s resource allocation process, identify RC requirements for new equipment. Funding for equipping the RC is provided via the Department of the Navy’s President’s Budget (PRESBUD) request, direct Congressional adds to the PRESBUD, and National Guard and Reserve Equipment Appropriation (NGREA) funding. Chart 1 provides an overview of funding provided to the RC via all three sources for FY 1997 through FY 2006; Chart 2 lists Congressional adds provided in the last three fiscal years to support RC equipment requirements; Table 3 identifies the amount of procurement funding programmed in support of the RC for FY 2007 through FY 2009; and Table 4 identifies equipment procured with FY 2004 through FY 2006 NGREA funding.

*CHART 1 Navy RC Procurement Funding Sources
(in million dollars)*



*CHART 2 Congressional Adds to Navy Procurement Programs for RC Equipment
(in million dollars)*

Source	Nomenclature	FY 2004	FY 2005	FY 2006	Remarks
APN	C-37 Aircraft	55.0	53.3		Aircraft procurement
OPN	Littoral Surveillance System/Joint Fires Network Unit	20.7			2 nd LSS and other equipment for the Distributed Common Ground Station
OPN	Construction and Maintenance Equipment		5.5		Modernization and replenishment
OPN	Tactical Vehicles		3.0		Modernization and replenishment
OPN	Training Support Equipment		6.8	1.5	Laser Marksmanship Training System (LMTS)
Total		75.7	68.6	1.5	

C. Navy Plan to Fill Mobilization Requirements

Major Operation Plans (OPLAN) and Contingency Plans require RC units to deploy as an integrated piece of the Navy war-fighting plan. Equipment requirements are identified by Navy Component Commanders and prioritized by the CNO. Requirements are identified, considered, and approved during the resource allocation process by Navy Component Commanders and cognizant Resource Sponsors.

Required equipment is maintained at the RC activity as either a training and mobilization asset; or it is stored at major CONUS embarkation locations as War Reserve Materiel Stock (WRMS), pre-positioned overseas or afloat, or deferred from procurement. WRMS equipment is released, shipped, and used by both AC and RC components as dictated by OPLAN requirements.

D. Current Navy Initiatives Affecting Navy RC Equipment

The Navy has several ongoing initiatives to modernize, improve, or change the operational capabilities of the RC. These initiatives include:

- Modernization and replenishment of the Naval Coastal Warfare (NCW) C4ISR equipment, boats and Civil Engineering Support Equipment (CESE). Procurement of this equipment is essential to replace assets depleted during OIF and ensure readiness for future operations. PRESBUD 2005 provided for the procurement of 13–34' SEA-ARK patrol craft for NCW units. This funding provided replacement craft for the 27' boat as well as providing additional craft to support the increase in Inshore Boat Units and associated craft (from 2 to 6 boats each). NCW is making upgrades to their CESE (trucks and generator sets) Table of Allowance (TOA) with over \$10M in FY 2005 and FY 2006 NGREA funding.
- Development and execution of the Naval Construction Force (NCF) plan to modernize and recapitalize equipment TOAs, including tactical vehicles, construction/maintenance equipment and other expeditionary camp material and equipment. Lessons learned from Operation Desert Storm identified serious problems with over-reliance on commercial vice tactical vehicles, wide diversities in type/model of truck chassis, and excessive aging due to inadequate procurement budgets. Development of an accredited budget model of the NCF program has identified minimum budget levels to sustain a ready force with equipment age less than a 20-year average and allowed a credible argument for capabilities-based budget decisions. In PRESBUD 2006, over \$23M is allocated for equipment procurement for the force, which is close to modeled funding levels required to maintain readiness at a CNO-approved risk level. CNO has supported \$27M in FY 2007 and similar inflation-adjusted levels in the FYDP to sustain the recapitalization and modernization of NCF equipment. The NCF equipment program will be reinforced with NGREA funds for the procurement of HMMWVs and 5-ton tactical trucks (Medium Tactical Vehicle Replacement (MTVRs)), Outer Tactical Vests (OTVs), Communications Gear, Combat Hardening, and Scalable Skid Loaders. This assistance is key to filling equipment gaps and replacing substandard commercial equipment with adequate tactical gear, thereby accelerating the outfitting of RC units most affected by historically low procurement budgets over the past 10 years. This equipment will also be used to train RC Seabees at Readiness Support Sites and protect Seabees in operational environments.
- Modernization and replacement of the Naval Expeditionary Logistics Support Force (NAVELSF) equipment TOA in order to improve current readiness and to ensure successful and safe cargo handling operations are conducted. NAVELSF equipment (Civil Engineering Support Equipment, Material Handling Equipment, and Communications Gear) held by units and in War Reserve Material Stock is

serviceable, but requires modernization. Since FY 2002, over \$14M in NGREA was provided to NAVELSF to upgrade their TOA and purchase Crane Training Systems (crane simulators) and Small Arms Simulators (M9 and M16).

- Replacement of the aging DC-9 and C-9B aircraft. Director of Air Warfare (N78) letter dated March 20, 1997 initiated the C-9 aircraft replacement program with the objective of replacing all 27 aging DC-9/C-9B transport aircraft with the C-40A aircraft at a rate of three per year. To date, 15 C-40A aircraft have been funded or are programmed through a combination of NGREA, Congressional Adds and Navy's submit to the FY 2007 PRESBUD.

CHART 3 RC C-40A Funding

FY	Qty	Funding Source
1997	2	NGREA
1998	1	NGREA
1999	1	NGREA
2000	1	PRESBUD
2001	1	CONG ADD
2002	0	PRESBUD
2003	1	CONG ADD
2004	1	PRESBUD
2005	1	PRESBUD
2006	0	PRESBUD
2007	0	Navy's submit
2008	0	Navy's submit
2009	5	Navy's submit
2010	1	Navy's submit
2011	1	Navy's submit

- Upgrade six SH-60 aircraft with improved communication/navigation equipment that is mission essential for counter narcotics operations and is required to facilitate interoperability with Joint Inter-Agency Task Force agencies in the USSOUTHCOM Area of Operations. The RC currently operates six SH-60Bs. Of those six, currently only two are equipped with a VHF capable radio and a Global Positioning System. The remaining four aircraft will receive this upgrade using FY 2004 NGREA funding.
- The Navy's Helicopter Concept of Operations plan is in major revision. The long-term goal is to replace all Navy helicopters with MH-60S and MH-60R type/model/series aircraft. To recapitalize the RC helicopter program will require 16 MH-60S and eight MH-60R aircraft. To date, eight MH-60S aircraft have been funded for the RC. The RC's most immediate helicopter priority is to replace eight aging UH-3H aircraft with MH-60S aircraft. This replacement will start in FY 2006 with the delivery of the first four MH-60S aircraft to the RC.

- Upgrade 19 Navy and 28 Marine Corps KC-130/C-130T transport aircraft with improved avionics to make them compliant with Federal Aviation Authority and International Civil Aviation Office communication, navigation and surveillance (CNS) requirements in support of Global Air Traffic Management. These upgrades will allow the Navy RC's C-130T aircraft to operate in all global airspace. The first aircraft are expected to be modified in FY 2007.
- Upgrade 40 F-5N aircraft with safety of flight upgrades including anti-skid brakes, heads-up display, night vision capability, radar altimeter and improved instrumentation. The block upgrade will enhance readiness and sortie completion rates while reducing risk in all weather operations. FY 2005 NGREA funded \$8M to upgrade four aircraft.
- Upgrade of the E-2C navigation system. The RC Airborne Early Warning squadrons are undergoing a transition from the E-2C Group 0 to the fleet common E-2C Group II. This will significantly upgrade the capability of the RC and allow the active service to divest of the Group 0 airframe and support. With the disestablishment of VAW-78 in FY 2005, this transition will have a long-term impact on VAW-77, undergoing a concurrent PAA increase from four to six aircraft. Associated with this transition, the RC desires to upgrade these 6 E-2C Group II aircraft with the fleet standard navigational upgrade modification. This upgrade will enhance the reliability and supportability of the navigation system, resulting in reduced AVDLR and IMA costs and increased sortie completion rates. The navigation upgrade is currently completely funded.
- Replace 32 Navy and 12 Marine Corps F-5 aircraft with Swiss F-5 aircraft. The plan to purchase Swiss aircraft replaces the previous plan to repair the stressed airframes of the F-5s that are approaching fatigue life expenditure. To date, 32 aircraft have been funded by the PRESBUD and 12 have been funded with NGREA. Sixteen aircraft will have been received by the end of 2006 with the remainder being received by the end of 2008.
- Replacement of the VP-3 aircraft. Director, Air Warfare (N88) letter dated April 26, 2000 initiated the VP-3 aircraft replacement program. The C-37 program procurement goal is five aircraft. The first aircraft was delivered in FY 2002. Congress added funding for two C-37 aircraft—one in FY 2004 and one in FY 2005, the FY 2005 PRESBUD funded the fourth aircraft, and the final C-37 aircraft is funded in 2011.

E. Navy Plan to Achieve Full Compatibility Between AC and RC

The Navy will continue to manage Total Force equipment inventories to provide the most capable systems to meet mission requirements and minimize the effects of equipment shortfalls and incompatibility. The Navy stresses interoperability as part of the Total Force concept and makes no distinction between the AC and the RC. Equipment acquisition, upgrade programs, and equipment redistribution from the AC have reduced problems in the areas of RC equipment compatibility and capability with both active and joint forces.

Working groups have been developing actionable end states in five separate areas: organizational structure, personnel management, readiness & training, hardware, and resources

and funding. The redesign implementation plan is evolutionary in nature and will be pursued with Congressional concurrence. The targeted areas for improvement include: the AC establishing requirements for readiness and training of the RC; the AC developing, implementing and funding training of the RC; consolidation of AC and RC equipment where feasible; simplification of the funding processes; and validation of RC requirements by the AC to provide required capabilities.

II. Navy RC Overview

A. Current Status of the Navy RC Capabilities

1. General Overview

The Navy's overriding goal is to establish and maintain a seamless and fully integrated Total Force. Navy policy is that RC units will be equipped to accomplish all assigned missions and will have an equipment and distribution program that is balanced, responsive to mission requirements, and sustainable. With ongoing integration efforts, equipment requirements will be determined by the AC, thereby enhancing equipment compatibility.

The RC consists of hardware units and augmentation units. Equipment availability has a direct impact on unit training, unit readiness, and the ability to perform assigned missions, particularly in hardware-centric units. Systems Commands, i.e., Naval Supply Systems Command, Naval Facilities Engineering Command, Naval Air Systems Command, and Naval Sea Systems Command, act as project managers to establish equipment allowances for designated RC hardware units to support operational requirements.

RC hardware units currently consist of 19 NCF, 14 NAVELSF, 44 NCW and 4 Explosive Ordnance Disposal (EOD) units, as well as 24 ships and 199 aircraft. All RC ships, NCW, NCF, NAVELSF and EOD units are under the operational control of Fleet Forces Command, and RC aircraft squadrons are under the operational control of Commander, Naval Air Forces.

Commander, Naval Air Force Reserve consists of four air wings: Commander, Reserve Patrol Wing (CRPW); Commander, Carrier Air Wing Reserve Twenty (CVWR-20); Commander, Helicopter Wing Reserve (CHWR); and Commander, Fleet Logistics Support Wing (CFLSW). The RC possesses 100 percent of the Navy's organic medium and heavy airlift and adversary training capability, 33 percent of the Navy's maritime patrol squadron capability, 12 percent of the Navy's rotary wing capability and 9 percent of the carrier air wing capability.

a. Naval Coastal Warfare (NCW)

The NCW organization consists of 8 NCW Squadrons (with deployable C4I detachments), 20 Mobile Inshore Undersea Warfare (MIUW) units, and 16 Inshore Boat Units (IBU). NCW units provide surface and sub-surface surveillance of coastal areas including ports, harbors, and the seaward approaches, operational command and control of those assets, and surface interdiction capability to support force protection operations required by Combatant Commanders. NCW units provide all of the Navy's capability for shallow water and very shallow water surveillance and detection of surface craft, subsurface craft, and swimmer threats.

MIUW units will fully upgrade all of 22 Radar Sonar Surveillance Center suites to V (4) mod 2 configuration over the next three years. This new configuration will enhance NCW capabilities, improve readiness, and lessen the training requirements to man the system. NCW will continue to make improvements to these systems, seeking to develop and field newer, lighter, and more expeditionary systems, capable of providing increased capability for force protection. As systems and components become more compact, NCW will take advantage of these technological advances to introduce lighter, more portable systems into the NCW

inventory. Following the terrorist attack on the USS COLE, several NCW units were recalled to active duty to provide in-theater force protection in the U.S. Central Command area of responsibility. Since the September 11th attack, the demand for NCW units has increased dramatically. Immediately after the attack, over one-third of the 4,000 person NCW force was mobilized and deployed to provide force protection and coastal surveillance in support of Naval Commanders throughout the world. The AC, realizing the importance of the NCW units' missions and functions, started the process to stand up AC units with similar capabilities. From FY 1997 through FY 2003, over \$162M of Other Procurement, Navy (OPN), Congressional Adds, and NGRE funding was provided to NCW to upgrade its equipment and capabilities. NCW is a program of record with \$399M planned over the FYDP.



NCW Radar Sonar Surveillance Center

During OIF, the NCW RC forces were again recalled to active duty and deployed to Kuwait and Iraq, providing anti-terrorism and force protection assets for coalition maritime forces in the Arabian Gulf. During the war, three units were significantly involved in protecting the Port of Ash Shuaybah; providing security for Mohammad Al Ahmad Kuwait Naval Base; providing both seaward and landward security operations for the off-load of the largest amphibious force assembled since the Inchon landing during the Korean War; participating in a NCW mission in Umm Qasr during the major combat operations phase of the war; providing protection of the Iraqi gas and oil platforms; constantly coordinating with the Navy explosive ordnance disposal units, U.S. Coast Guard port security units, Kuwaiti Coast Guard and Navy ships, as well as U.S. Army troops, National Guard units, Marines, Naval Special Warfare units, Kuwaiti Ministers of Interior and Defense and civilian port authorities. The NCW force protection mission in Kuwait is expected to continue for the foreseeable future.

b. Naval Construction

The RC provides 66 percent of the Navy's combat construction capability in support of Unified and Navy Component Commander operational requirements. The AC and RC are an integrated force, with like units having the same operational chain of command, mission, readiness standards, and equipment. OPLAN support is provided by a mix of AC and RC units, with ready units being married up with ready equipment sets in theater.

Under the operational control of FIRST Naval Construction Division, the RC NCF consists of four Naval Construction Regiments (NCR), twelve Naval Mobile Construction Battalions (NMCB), two Construction Battalion Maintenance Units (CBMU), and one Naval Construction Force Support Unit (NCFSU).

In order to improve the balance between early and late flowing units to support existing OPLANs, the two RC CBMUs will move to the AC in FY 2006. This allows rapid deployment to support USMC headquarters base camps, elimination of 17 smaller, specialized active duty

Construction Battalion Units (CBUs), assumption of the mission to support Navy Expeditionary Medical Units (formerly Fleet Hospitals), and provision of a greater capability to respond to CBRNE incidents within the United States.

Immediately following the September 11th attack, over 700 personnel from RC NCF units were mobilized and deployed to Camp Rhino and Kandahar Airport in Afghanistan and to other locations throughout the world to perform construction and force protection projects. During OIF, nearly 1800 RC Seabees were recalled from 17 different units for direct in-theater operations in the CENTCOM Area of Responsibility (AOR). Follow on OIF/OEF presence has been provided in six month rotations by over 400 RC personnel per rotation. 588 RC personnel support current operations in Iraq and Afghanistan on six-month rotations to provide base camp support to USMC security forces, as well as to provide a robust construction capability to repair Iraqi infrastructure and support for SOF. This represents half of the NCF presence in the CENTCOM AOR, and based on current planning assumptions, will ultimately require mobilization of every RC NCF unit to fill rotational support operations through the end of FY 2006. RC NCF assets are critical to ensuring Navy mission support in the most dangerous sector of the Iraqi theater as well as world-wide forward presence.

The RC NCF have equipment shortfalls in their deployment TOA pack-ups held in WRMS. Equipment shortfalls include tactical vehicles, other civil engineering support equipment, and communications gear. Significant funding increases beginning in FY 2003 (\$13M in FY 2003, \$51M in FY 2004, and \$36M in FY 2005) have placed the NCF on track to eliminate these shortfalls over the next 10 years. Additionally, funding was provided from FY 2004 NGREA to procure two mobile firearms training simulators to maintain mission-critical skills in small arms handling and in the FY 2005 NGREA, \$9.6M for HMMWVs and Medium Tactical Vehicles. These investments in the NCF have been reflected in the RC NCF's exceptional ability to rapidly mobilize, quickly refresh their military skills during the post-mobilization training phase, and then deploy into a hostile theater at the same readiness levels as their active counterparts. There is no distinction between AC and RC. The investment in readiness has worked.

c. Naval Expeditionary Logistics Support

NAVELSF RC units constitute more than 90 percent of the Navy's expeditionary logistics support capabilities. NAVELSF units provide a wide range of logistics capabilities, including ship loading and discharge, operating air cargo terminals and freight forwarding terminals, warehouse operations and mobile mail centers. In addition, cargo handlers maintain their skills during peacetime by carrying out ship offloads and backloads for Naval Expeditionary Medical Support Command, the Maritime Prepositioning Ships, and other Military Sealift Command shipping, and by providing operational support to Naval logistics commanders in the European, Pacific and Central Command AORs. They have been fully integrated with AC since the beginning of FY05 when the Navy's AC cargo handling battalion transferred to the operational and administrative control of NAVELSF.

Immediately following the September 11th attack, over 60 personnel from NAVELSF units were mobilized and deployed to Bahrain in direct support of OEF 1. These personnel augmented Commander, Task Force 53, and performed cargo handling and air terminal operations in support of afloat and ashore operating units in the Arabian Gulf region. This

requirement was on a continuous basis and concluded in July 2003. In support of OEF and OIF, NAVELSF provided 385 personnel for Forward Logistics Site support to offload Maritime pre-positioned ships, contracted ships, and charter ships in the EUCOM, CENTCOM, and PACOM AORs. NAVELSF's most recent operational commitment has been their involvement in joint operations with the Army and Marine Corps in support of the Global War on Terror. To date, NAVELSF has deployed approximately 1,900 personnel of their 4,000 AC/RC Force to the CENTCOM AOR in direct support of OIF. Additionally, NAVELSF provides mobilization, training, equipping, and administrative support to provisional Customs Inspection Battalions of 445 RC personnel each. Two Customs Battalions have already been deployed to OIF. These efforts are scheduled to continue into OIF 5-7 and beyond.

NAVELSF equipment (Civil Engineering Support Equipment, Material Handling Equipment, and Communications Gear) held by units and in WRMS is serviceable, but requires modernization since much of it is over-aged. For example, HMMWVs have been added to the NAVELSF TOA; however, NAVELSF must borrow HMMWVs from the Army and Marine Corps because they do not have any assets in their inventory. Since FY 2002, nearly \$11.75M in NGREA was given to NAVELSF to upgrade their TOA and purchase Crane Training Systems (crane simulators) and Small Arms Simulators (M9 and M16). Still, less than 20 percent of the NAVELSF TOA requirement is funded and increased OPN funding will be required to make a significant improvement to TOA shortfalls. Because of the equipment shortage, current NAVELSF missions in the CENTCOM AOR are being conducted with Army stay behind equipment, thus degrading the readiness of Army transportation units that have redeployed. Additionally, the NAVELSF TOA shortfalls impact the readiness to support OPLANS that require the majority of the force to deploy and conduct simultaneous cargo handling missions.

d. Explosive Ordnance Disposal

Under the operational control of COMARFPCOM, RC EOD forces comprise four of the ten EOD Mobile Units in the Navy. EOD units provide combat ready forces to eliminate ordnance hazards, clear harbors and approaches of obstacles, and salvage/recover ships, aircraft and weapons lost or damaged in peacetime or combat.

e. Fleet Air Logistics



**C-40 Aircraft Transporting
NAVELSF Personnel to Theater**

The RC provides all of the Navy's organic intra-theater medium and heavy airlift capability. This airlift provides direct logistics support for Fleet Commanders worldwide and airlift support to all military departments within the continental United States. The Fleet Logistics Support Wing consists of 15 squadrons operating C-40, C-9, C-20, C-37, and C-130 aircraft. The C-9 aircraft average over 30 years in age and require substantial avionics upgrades and engine replacement to meet globally mandated noise abatement and navigation requirements. A

significant airlift recapitalization was initiated in FY 1997 when \$120M was provided through NGREA for procurement of two C-40A aircraft to replace the aging C-9 fleet. Seven more C-40As were procured in the period FY 1998 to FY 2005 utilizing funding from NGREA, Congressional Adds, or the PRESBUD. To date, nine C-40As have been accepted and are being operated by VR-

59 at Naval Air Station Joint Reserve Base, Fort Worth, TX, VR-58 at Naval Air Station, Jacksonville, FL, and VR-57 at Naval Air Station, North Island, CA. FY 2004 funding also supported the installation of avionics upgrades to all 18 NR C-130T cargo planes. This upgrade will make the aircraft compliant with CNS requirements to fly in all global airspace. Additionally, Congress has added \$55M to the FY 2004 PRESBUD for procurement of one C-37.

f. Maritime Patrol Reconnaissance Aviation (MPRA)

The RC currently provides 33 percent of the Navy's Maritime Patrol squadrons, primarily providing counter narcotics operations and anti-submarine warfare exercises support. The RC has six P-3 Squadrons, three with an aircraft allowance of six and three with an aircraft allowance of



**P-3C Orion
Surveillance Aircraft**

four. All RC P-3 squadrons report to a single Patrol Wing Commander. As of October 1 2004, three of the squadrons will report to a numbered AC Patrol and Reconnaissance Wing. Of the 27 P-3 aircraft required by the geographic Unified Commanders to be forward deployed, one is provided by the RC. In FY 2003, the RC completed the installation of eight P-3 Update III modification kits procured with NGREA funding. Additionally, the RC received four state-of-the-art AIP P-3 aircraft, with two more aircraft presently undergoing modification to AIP. It is imperative that RC combat aircrews are trained and operate in the Fleet's frontline mission aircraft. An AIP capable Reserve force is essential to the MPRA community's ability to satisfy Fleet Response Plan requirements and keeps the RC in lockstep with the AC in progression to MMA.

Effective September 18, 2004, VP-64 was re-designated VR-64 transitioning from the P-3 to the C-130T aircraft. This transition alleviated some of the airframe fatigue issues and increased the Navy's logistics capability. Program Review for FY 2005 includes a Program Change Proposal that fosters a closer integration with the AC mission and requirements. Active/Reserve Integration will significantly re-shape the Maritime Patrol and Reconnaissance community.

g. Carrier and Expeditionary Strike Group Rotary Aviation

The RC provides five helicopter squadrons to the Navy's rotary wing fleet. In addition, the RC provides personnel and equipment (seven MH-53E helicopters) in support of two composite (RC and AC) Airborne Mine Countermeasures (AMCM) squadrons.



HCS HH-60 Aircraft Conducting OIF Operations

This represents 12 percent of the Navy's total helicopter inventory, as well as all of the Navy's Helicopter Combat Support Special Squadrons and 35 percent of the AMCM assets. The squadrons perform a variety of critical missions including search and rescue, logistics support, anti-submarine warfare, AMCM and counter narcotics operations. The RC helicopter inventory consists of the HH-60H, SH-60B,

SH-60F, UH-3H and MH-53E aircraft. During OIF, HCS-4 and HCS-5 were partially mobilized and deployed to Kuwait and Iraq, participating in the support of special operations ground forces missions in urban and rural areas, supporting psychological operations, and helping with medical and casualty evacuations. The RC squadrons are also significantly involved with counter narcotics operations. In FY 2004, four SH-60B aircraft were equipped with VHF equipment utilizing NGREA funding. This upgrade facilitated interoperability with Joint Inter-Agency Task Force agencies in the USSOUTHCOM Area of Operations. Additionally, the SH-60B squadron is equipped with one Forward-Looking Infrared (FLIR) kit dramatically increasing the mission effectiveness by enabling critical night vision capability during counter narcotics operations.

h. Carrier Aviation



CVWR-20 Aircraft in El Centro

The RC provides one of the Navy's eleven Carrier Air Wings. The CVWR-20 is comprised of six squadrons, (3) F/A-18A/B, (1) EA-6B, (1) E-2C, and (1) F-5E/F. In addition to CVWR-20's operational requirements, its squadrons are engaged in providing operational support in the form of adversary training and counter narcotics operations. CVWR-20 provides nearly all of the Navy's adversary mission capability, and 100 percent of the Navy E-2C counter narcotics support, while participating regularly in fleet exercises.

i. Surface/Mine Warfare

The RC consists of twenty-four ships, homeported throughout the United States. RC ships regularly deploy to support the Navy's operational requirements, relieving the operational tempo of AC ships. These ships continue to be a vital part of the Navy, participating in numerous fleet operations and exercises such as Standing Naval Forces Atlantic (SNFL), UNITAS, RIMPAC, CARAT, KERNAL BLITZ, COBRA GOLD and counter narcotics operations in the Caribbean and the Pacific. FFGs were deployed in support of OEF and NOBLE EAGLE. These ships are significant fleet assets as well as important training platforms for Navy Reservists.

The RC surface capability consists of nine OLIVER HAZARD PERRY class frigates (FFG). In FY 2003, the RC received three SH-60B capable FFGs replacing three older ships and in FY 2004, one additional SH-60B capable FFG was transferred from the AC.

The RC comprises approximately 60 percent of the Navy's surface ship mine warfare capabilities. The total number of RC Mine Warfare ships is 15: ten Mine Hunter Coastal (MHC) and five Mine Counter Measure (MCM) ships. All are homeported in Ingleside, TX.

2. Status of Equipment

a. Equipment On-hand

Table 1 provides RC major equipment inventories on-hand and requirements to meet assigned missions.

b. Average Age of Major Items of Equipment

As in the AC, the RC possesses equipment requiring replacement and modernization. *Table 2* provides the average age of major equipment in the RC inventory. Of particular concern are the UH-3H aircraft (44 years old), the DC-9 aircraft (36 years old), the F-5E aircraft (21 years old), the C-9B aircraft (31 years old), and the EA-6B aircraft (30 years old). Additionally, significant amounts of the NCW, NCF, NAVELSF, and EOD TOA equipment, CESE and MHE are over-aged. Much of this equipment is in the process of being upgraded or replaced.

c. Compatibility of Current Equipment with the AC

Achieving equipment compatibility with the AC is one of the Navy's priorities and is reflected in the CNO's unfunded equipment priority list. Navy procurement and upgrade programs as well as Congressionally Adds have improved RC equipment capability and compatibility.

For the NCF, NCW, NAVELSF, and EOD units, sustainability and interoperability with other units with whom they operate remain challenging issues. Significant funding increases beginning in FY 2003 and across the FYDP have moved these organizations toward reducing these shortfalls. Congressional Adds and NGREA funding have also been used to significantly reduce these deficiencies.

d. Maintenance Issues

The RC shares the same readiness and maintenance challenges as the AC. Since FY 2000, the CNO placed an even higher focus on maintenance funding by making current readiness a top priority for the Navy. This focus resulted in an improved maintenance funding profile for the RC.

e. Modernization Programs and Shortfalls

The Navy has a considerable list of unfunded equipment replacement and modernization requirements. Each year, the CNO develops an unfunded equipment requirements list and forwards it for resourcing consideration. The CNO's highest priority unfunded equipment requirements for the RC are contained in *Table 8*.

B. Changes Since Last NGRER

The significant changes that have occurred since the last NGRER have been described in Section I, paragraph D of this document.

C. Future Years Program (FY 2007–FY 2009)

1. FY 2009 Equipment Requirements

Table 1 provides projected FY 2009 major equipment inventories and requirements.

2. Anticipated New Equipment Procurements

Major equipment anticipated to be procured for the RC includes nine F-5 aircraft in FY 2006 and five F-5 aircraft in FY 2007. Additionally, a significant amount of funding is being provided to NCW, NCF and NAVELSF to procure ground equipment as previously presented in this document. *Tables 3 and 4* reflect these anticipated new equipment procurements.

3. Anticipated Transfers from AC to RC

Table 5 provides anticipated major equipment transfers from the AC to the RC.

4. Anticipated Withdrawals from RC

Table 5 provides major equipment to be decommissioned within the RC.

5. Remaining Equipment Shortages and Modernization Shortfalls at the end of FY 2009

Tables 1 and 8 provide RC equipment inventories, shortfalls and modernization requirements.

D. Summary

The Navy is seamlessly integrating the RC and AC into a cohesive Total Force capable of meeting all operational requirements. RC equipment will continue to be addressed through a combination of new procurement, redistribution from the AC, modernization of equipment held in the RC inventory, and unit integration.

The RC, as well as the AC, continues to face the problem of procurement requirements exceeding resources available. The top equipment priorities for the RC are procurement of the CESE, MHE and communications equipment for RC NCW, NCF and NAVELSF units; procurement of C-40A and MH-60S aircraft, and upgrade of the C-130, C-9 and F-5 aircraft. As in the past, the Navy will continue to balance resources to best equip the AC and RC to support mission requirements.

Consolidated Major Item Inventory and Requirements

NOTE: This table provides a comprehensive list of selected major items of equipment. It provides the quantity on-hand (QTY O/H) projected to be in the inventory at the beginning/end of the selected fiscal year (FY). It also provides the quantity required (QTY REQ) needed to meet the full wartime requirements of the Reserve component. In accordance with Title 10, the QTY REQ number provides the recommendations as to the quantity and type of equipment which should be in the inventory of each Reserve component. Unit cost values are in dollars.

Nomenclature	Equip No.	FY 2007 Unit Cost	Begin FY 2007 QTY O/H	Begin FY 2008 QTY O/H	Begin FY 2009 QTY O/H	End FY 2009 QTY O/H	End FY 2009 QTY REQ
AIRCRAFT							
AIRCRAFT, TRANSPORT, C-9B (SKYTRAIN)	C-9B	28,332,210	15	15	15	14	12
AIRCRAFT, TRANSPORT, DC-9 (SKYTRAIN)	DC-9	18,680,080	2	2	2	0	0
AIRCRAFT, TRANSPORT, C-40A (BOEING 737-700)	C-40A	77,000,000	9	9	10	12	16
AIRCRAFT, TRANSPORT, C-130T (HERCULES)	C-130T	36,579,420	18	18	18	18	18
AIRCRAFT, TRANSPORT, C-20D (GULFSTREAM)	C-20D	32,542,850	2	2	2	2	2
AIRCRAFT, TRANSPORT, C-20G (GULFSTREAM)	C-20G	39,715,770	4	4	4	4	4
AIRCRAFT, TRANSPORT, C-37A (GULFSTREAM)	C-37A	52,109,467	1	0	0	0	0
AIRCRAFT, TRANSPORT, C-37B (GULFSTREAM)	C-37B	57,300,000	2	3	3	3	3
AIRCRAFT, TRANSPORT, UC-12B (KINGAIR)	UC-12B	3,614,270	4	4	4	4	4
AIRCRAFT, PATROL, P-3C (ORION)	P-3C	59,024,150	24	18	18	18	18
AIRCRAFT, EARLY WARNING, E-2C (HAWKEYE)	E-2C	81,712,990	6	6	6	6	6
AIRCRAFT, EARLY WARNING, EA-6B (PROWLER)	EA-6B	66,067,290	4	4	4	4	4
AIRCRAFT, FIGHTER/ATTACK, F/A-18C (HORNET)	F/A-18C	44,594,880	30	20	20	20	20
AIRCRAFT, FIGHTER, F-5E (FREEDOM FIGHTER)	F-5E	12,189,020	14	6	0	0	0
AIRCRAFT, FIGHTER, F-5F (FREEDOM FIGHTER)	F-5F	12,189,020	3	3	3	3	3
AIRCRAFT, FIGHTER, F-5N (FREEDOM FIGHTER)	F-5N	1,000,000	16	25	32	32	32
HELICOPTER, COMBAT, MH-60S (SEAHAWK)	MH-60S	23,690,000	4	8	8	12	12
HELICOPTER, COMBAT SAR, HH-60H (SEAHAWK)	HH-60H	19,400,050	16	16	4	4	4
HELICOPTER, COMBAT SAR, UH-3H (SEA KING)	UH-3H	9,963,190	4	0	0	0	0
HELICOPTER, MINEWAR, MH-53E (SEA DRAGON)	MH-53E	33,381,270	8	8	8	8	8
HELICOPTER, ASW, FRIGATE, SH-60B (SEAHAWK)	SH-60B	28,965,660	6	6	6	6	6
HELICOPTER, ASW, CARRIER, SH-60F (SEAHAWK)	SH-60F	20,770,980	6	6	4	4	4
SHIPS							
FRIGATE, GUIDED MISSILE (PERRY CLASS) FLIGHT III	FFG	329,668,599	9	9	9	9	9
SHIP, MINE COUNTERMEASURES (AVENGER CLASS)	MCM	154,193,429	5	4	2	0	0

Consolidated Major Item Inventory and Requirements

Nomenclature	Equip No.	FY 2007 Unit Cost	Begin FY 2007 QTY O/H	Begin FY 2008 QTY O/H	Begin FY 2009 QTY O/H	End FY 2009 QTY O/H	End FY 2009 QTY REQ
SHIP, MINE HUNTER, COASTAL (OSPREY CLASS)	MHC	150,528,605	6	4	0	0	0
NAVAL COASTAL WARFARE FORCES							
MIUW SURVEILLANCE SYSTEM	RSSC/MSP	5,900,000	20	20	20	20	20
BOAT, INSHORE (NCW)	IBU	5,700,000	16	16	16	16	16
MOBILE ASHORE SUPPORT TERMINAL	MAST	4,000,000	8	8	8	8	8
RESERVE NAVAL CONSTRUCTION FORCES							
NAVAL CONSTRUCTION REGIMENT TOA	NCR	2,883,815	4	4	4	4	4
CONSTRUCTION BATTALION MAINTENANCE UNIT TOA	CBMU	12,761,758	2	2	2	2	2
NAVAL CONSTRUCTION FORCE SUPPORT UNIT TOA	NCFSU	90,226,511	1	1	1	1	1
NAVAL MOBILE CONSTRUCTION BATTALION TOA	NMCB	44,888,378	12	12	12	12	12
RESERVE NAVAL EXPLOSIVE ORDNANCE DISPOSAL FORCES							
NAVAL RESERVE FORCE EOD MOBILE UNITS TOA	NRFMU	3,734,197	4	4	4	4	4
NAVAL EXPEDITIONARY LOGISTICS SUPPORT FORCES							
MATERIAL HANDLING EQUIPMENT ITEMS	NAVELSF-MHE	18,096,528	1	1	1	1	1
CIVIL ENGINEERING SUPPORT EQUIPMENT ITEMS	NAVELSF-CESE	5,055,652	1	1	1	1	1
LITTORAL SURVEILLANCE SYSTEM	DCSG-N/LSS	5,000,000	2	2	2	2	2

USNR Average Age of Equipment

Table 2

<i>NOTE: This table provides the average age of selected major items of equipment. The average age provides a projected average age of the fleet at the start of FY 2006.</i>			
Nomenclature	Equip No.	Average Age	Remarks
AIRCRAFT			
AIRCRAFT, TRANSPORT, C-9B (SKYTRAIN)	C-9B	31	
AIRCRAFT, TRANSPORT, DC-9 (SKYTRAIN)	DC-9	36	Last two DC-9 to be retired upon receipt of C-40A number 10 and 11
AIRCRAFT, TRANSPORT, C-40A (BOEING 737-700)	C-40A	3	
AIRCRAFT, TRANSPORT, C-130T (HERCULES)	C-130T	12	
AIRCRAFT, TRANSPORT, C-20D (GULFSTREAM)	C-20D	19	
AIRCRAFT, TRANSPORT, C-20G (GULFSTREAM)	C-20G	12	
AIRCRAFT, TRANSPORT, C-37A (GULFSTREAM)	C-37A	3	
AIRCRAFT, TRANSPORT, C-37B (GULFSTREAM)	C-37B	1	
AIRCRAFT, TRANSPORT, UC-12B (KINGAIR)	UC-12B	26	
AIRCRAFT, PATROL, P-3C (ORION)	P-3C	25	Although the age of the aircraft has not changed, the FLE has improved due to the withdrawal of the higher FLE aircraft from the inventory.
AIRCRAFT, EARLY WARNING, E-2C (HAWKEYE)	E-2C	20	
AIRCRAFT, EARLY WARNING, EA-6B (PROWLER)	EA-6B	30	
AIRCRAFT, FIGHTER/ATTACK, F/A-18 (HORNET)	F/A-18A/B	21	Includes F/A-18A and F/A-18B aircraft
AIRCRAFT, FIGHTER, F-5 (FREEDOM FIGHTER)	F-5E/F/N	21	The average age has decreased since last year due to the addition of the newer Swiss F-5N aircraft into our inventory.
HELICOPTER, COMBAT SAR, HH-60H (SEAHAWK)	HH-60H	15	
HELICOPTER, COMBAT SAR, UH-3H (SEA KING)	UH-3H	44	The first four MH-60S replacement aircraft will be received in FY 2006
HELICOPTER, MINESWAR, MH-53E (SEA DRAGON)	MH-53E	12	
HELICOPTER, ASW, FRIGATE, SH-60B (SEAHAWK)	SH-60B	22	
HELICOPTER, ASW, CARRIER, SH-60F (SEAHAWK)	SH-60F	16	
SHIPS			
FRIGATE, GUIDED MISSILE (PERRY CLASS) FLIGHT III	FFG	22	
SHIP, MINE COUNTERMEASURES (AVENGER CLASS)	MCM	17	
SHIP, MINE HUNTER, COASTAL (OSPREY CLASS)	MHC	11	
MIUW SURVEILLANCE SYSTEM	RSSC/MSP	NA	Equipment is in a constant spiral upgrade in order to implement new and emerging technology. The MIUW V4 MOD 2 systems will be delivered to the Fleet October 2005.
BOAT, INSHORE (NCW)	IBU	4	63 craft have been delivered out of the 100 required

USNR
Average Age of Equipment

Table 2

Nomenclature	Equip No.	Average Age	Remarks
MOBILE ASHORE SUPPORT TERMINAL	MAST	N/A	Equipment is in a constant spiral upgrade in order to implement new and emerging technology. The MIUW V4 MOD 2 systems will be delivered to the Fleet October 2005. MAST III to be delivered to the fleet starting second quarter FY 2006.
NAVAL RESERVE FORCE EOD MOBILE UNITS TOA	NRFMU	5	EOD equipment costs are small in nature and are continually upgraded
LITTORAL SURVEILLANCE SYSTEM	DCGS-N/LSS	3	DCGS-N/LSS changed resource sponsor from OPNAV N75 (Expeditionary Warfare) to N71 (Netcentric Warfare)

USNR

Table 3

Service Procurement Program - Reserve (P-1R)

NOTE: This table identifies the dollar value of equipment programmed to be procured with Service procurement funds as identified in the P-1R exhibit of the FY 2007 President's Budget Submission. All values are costs in dollars, and ammunition procurements have been excluded. Deliveries of procured equipment normally take one to two years before they arrive in the inventory; e.g., items procured in FY 2007 would be expected to arrive in RC inventories in FY 2008 or FY 2009.

Nomenclature	FY 2007	FY 2008	FY 2009	Remarks
AIRLIFT AIRCRAFT				
C-40A			392,261,000	
MODIFICATION OF AIRCRAFT				
ADVERSARY	2,638,000			
H-53 SERIES	7,128,000	7,275,000	7,417,000	
C-130 SERIES			25,654,000	
CARGO/TRANSPORT A/C SERIES	30,332,000	20,769,000	17,952,000	
SMALL BOATS				
STANDARD BOATS	1,591,000	1,036,000	641,000	
CIVIL ENGINEERING SUPPORT EQUIPMENT				
GENERAL PURPOSE TRUCKS		39,000	79,000	
CONSTRUCTION & MAINTENANCE EQUIP	359,000	1,173,000	325,000	
FIRE FIGHTING EQUIPMENT	636,000	304,000	447,000	
TACTICAL VEHICLES	9,023,000	10,570,000	12,947,000	
CIVIL ENGINEERING SUPPORT EQUIPMENT - ITEMS UNDER \$5M	2,078,000	1,858,000	1,898,000	
SUPPLY SUPPORT EQUIPMENT				
MATERIALS HANDLING EQUIPMENT	1,365,000	1,408,000	1,438,000	
COMMAND SUPPORT EQUIPMENT				
C4ISR EQUIPMENT	4,864,000	7,885,000	7,543,000	
TOTAL	\$60,014,000	\$52,317,000	\$468,602,000	

National Guard and Reserve Equipment Appropriation (NGREA) Procurements

NOTE: This table identifies the dollar value of equipment originally programmed to be procured with the National Guard and Reserve Equipment Appropriation (NGREA). These funds are available for a three-year period from the year of appropriation. Deliveries of procured equipment normally take one to two years from date of procurement before they arrive in the inventory; e.g., items procured in FY 2007 would be expected to arrive in RC inventories in FY 2008 or FY 2009. All values are costs in dollars.

Nomenclature	FY 2004	FY 2005	FY 2006	Remarks
F/A-18 ECP-560R1 KITS	6,000,000			
F/A-18A AT-FLIR UPGRADE	7,800,000			
F/A-18A AIRCRAFT EQUIPMENT		13,713,320		
F-5 AIRCRAFT PROCUREMENT	8,640,000	8,000,000		
C-9B TRAINER	9,000,000			
E-2C NAVIGATION SYSTEM UPGRADE	600,000			
SH-60B FORWARD LOOKING INFRARED KITS	2,600,000			
SH-60B COMMUNICATION/NAVIGATION UPGRADE	1,400,000			
C-130 ELECTRONIC PROPELLER CONTROL SYSTEM (EPCS)			1,157,000	
MH-60S ARMED HELO KITS			9,000,000	
NAVAL CONSTRUCTION FORCE - FIREARMS TRAINING SIMULATORS	600,000			
NAVAL CONSTRUCTION FORCE - TACTICAL VEHICLES & CIVIL ENGINEERING SUPPORT EQUIPMENT		11,080,000	11,612,000	
NAVAL COASTAL WARFARE EQUIPMENT	2,114,000	8,585,270	5,412,000	Note 1
NAVAL EXPEDITIONARY LOGISTICS SUPPORT FORCE (NAVELSF) TOA EQUIPMENT	4,545,100	2,436,410	2,322,000	Note 1
MOBILE DIVING SALVAGE UNIT TOA EQUIPMENT	722,000			Note 1
EXPLOSIVE ORDNANCE DISPOSAL RIGID HULL INFLATABLE BOAT			94,000	
REIMBURSEMENT TO THE U.S. TREASURY FUND	645,000			Note 2
TOTAL	\$44,666,100	\$43,815,000	\$29,597,000	

Note 1: Used for procurement of Civil Engineering Support Equipment, Material Handling Equipment and Communication Equipment to support unit wartime Table of Allowance requirements.

Note 2: Reimbursement to the U.S. Treasury Judgment Fund for a \$2,100,000 judgment against a prior-year C-9 procurement contract.

Projected Equipment Transfer/Withdrawal Quantities

NOTE: This table portrays the planned equipment transfers (Active to Reserve), withdrawals (-), and decommissioning (-). Transferred equipment is commonly called "cascaded equipment," or equipment that is provided to the RC once the Active receives more modern equipment. Although this table highlights a three-year period, many Services will not know exact quantities of transfers or withdrawals until year of execution, due to the uncertainty of the procurement/delivery cycle of new equipment.

Nomenclature	Equip No.	FY 2007 Qty	FY 2008 Qty	FY 2009 Qty	Remarks
AIRCRAFT, TRANSPORT, DC-9 (SKYTRAIN)	DC-9			-2	Replaced by C-40A aircraft as they are received
AIRCRAFT, FIGHTER/ATTACK, F/A-18A (HORNET)	F/A-18A	-25	-5		1:1 Swap with AC F/A-18C airframes
AIRCRAFT, FIGHTER/ATTACK, F/A-18C (HORNET)	F/A-18C	+15	+5		1:1 Swap with AC F/A-18C airframes and disestablishment of VFA 201
AIRCRAFT, FIGHTER, F-5E (FREEDOM FIGHTER)	F-5E	-8	-6		Replaced by the F-5N
HELICOPTER, COMBAT SAR, UH-3H (SEA KING)	UH-3H	-4	-2		Replaced by MH-60S aircraft as they are received
HELICOPTER, COMBAT SAR, HH-60H (SEAHAWK)	HH-60H	-12	-4		Replaced with MH-60S aircraft.
SHIP, MINE COUNTERMEASURES (AVENGER CLASS)	MCM 1 Class	-1	-2	-2	MCM will transition to active in order to support C5F MIW Crew rotation
SHIP, MINE HUNTER, COASTAL (OSPREY CLASS)	MHC 51 Class	-2	-4		MHC Divestment Plan as approved by the CNO
AIRCRAFT TRANSPORT C-37A (GULFSTREAM)	C-37A	-1			1:1 Exchange with new C-37B aircraft
AIRCRAFT PATROL P-3C (ORION)	P-3C	-6			Result of Active-Reserve integration
HELICOPTER, ASW, CARRIER, SH-60F (SEAHAWK)	SH-60F		-2		Replaced by new HH-60S aircraft as part of master helo replacement plan

FY 2003 Planned vs Actual Procurements and Transfers

NOTE: This table compares what the Service planned to procure and transfer to the RC in FY 2003 with actual procurements and transfers. FY 2003 is selected as these are the most recent funds to expire. Since the procurement cycle is normally one to two years from funding to delivery, this table identifies only what has been delivered through the end of FY 2005. Procurement and NGREA columns reflect cost values in dollars.

Nomenclature	Equip No.	FY 2003 Transfers (# of items)		FY 2003 Procurements (\$s)		FY 2003 NGREA (\$s)	
		Plan	Actual	Plan	Actual	Plan	Actual
AIRCRAFT, TRANSPORT, DC-9 (SKYTRAIN)	DC-9	-1	-1				
FRIGATE, GUIDED MISSILE (PERRY CLASS) FLT III	FFG	+3	+3				
F-18 SERIES MODIFICATIONS				12,100,000	11,780,000		
C-130 SERIES MODIFICATIONS				300,000	313,000		
H-46 SERIES MODIFICATIONS				200,000	219,000		
H-53 SERIES MODIFICATIONS				6,600,000	6,470,000		
CARGO/TRANSPORT A/C SERIES MODIFICATIONS				400,000	411,000		
ASW PATROL SQUADRONS - SONOBUOYS				3,000,000	2,929,000		
MOBILE SENSOR PLATFORM				2,000,000	0		
DIVING AND SALVAGE EQUIPMENT				100,000	120,000		
TACTICAL VEHICLES				9,400,000	9,186,000		
ITEMS LESS THAN \$5 MILLION				3,000,000	2,928,000		
FIREFIGHTING EQUIPMENT				1,000,000	993,000		
MATERIAL HANDLING EQUIPMENT				1,400,000	1,321,000		
C4ISR EQUIPMENT				0	8,878,000		
ADVERSARY				0	6,336,000		
CONSTRUCTION & MAINTENANCE EQUIP				0	14,000		
GENERAL PURPOSE TRUCKS				0	8,000		
C-130T ARMOR						350,000	350,000
EA-6B BLOCK 89A UPGRADE						5,000,000	4,872,240
CONTINUITY OF OPERATIONS EQUIPMENT						1,450,000	1,450,000
NAVAL EXPEDITIONARY LOGISTICS SUPPORT FORCE COMMUNICATIONS AND GROUND EQUIPMENT						1,688,900	1,738,900
CHEMICAL, BIOLOGICAL, AND RADIOLOGICAL MEDICAL SUPPLIES						1,455,000	0
DC-9 JUDGEMENT FUND REIMBURSEMENT						0	1,455,000
TOTAL				\$39,500,000	\$51,906,000	\$9,943,900	\$9,866,140

Major Item of Equipment Substitution List

NOTE: This table identifies equipment authorized by the Service to be used as a substitute for a primary item of equipment. The table also identifies whether or not the item is able to be deployed in wartime. This data meets the Title 10 requirement to identify equipment that is not the most desired item of equipment.

Required Item Nomenclature	Reqd Item Equip No.	Substitute Item Nomenclature	Substitute Item Equip No.	FY 2007 Qty	Deployable?	
					Yes	No
<p>Service Does Not Use Substitution To Satisfy Major Item Equipment Requirements</p>						

Significant Major Item Shortages

NOTE: This table provides an RC top ten prioritized (PR) shortage list for major items of equipment required for wartime missions but which are currently not funded in the FYDP. It lists the total quantity required, the total unfunded requirement, the individual item cost, and the cost of the unfunded portion. This data is consistent with other unfunded data submitted by the Service.

PR	Nomenclature	Total Req'd	# Items Short	Item Cost	Total Shortage Cost	Rationale/Justification
1	Naval Coastal Warfare Table of Allowance Equipment	Various	Various	Various	24,274,000	Replacement of over-aged and unreliable tactical vehicles, CESE, and communications equipment are needed to improve operational support of OEF and OIF.
2	Explosive Ordnance Disposal Table of Allowance Equipment	Various	Various	Various	3,398,000	EOD reserve personnel require dive and protective gear, up-armored vehicles, boats and communications gear to improve operational support of OEF and OIF.
3	NCF Tactical Vehicles and Support Equipment	Various	Various	Various	76,000,000	Tactical vehicles, CESE and communications equipment are needed to improve operational support of OEF, OIF and Homeland Defense.
4	MH-60S Armed Helo Kits	8	8	4,500,000	36,000,000	Armed Helo Kits are required for MH-60S aircraft to improve combat capability in the OEF and OIF theaters.
5	C-40A	27	14	78,000,000	1,092,000,000	Navy C-9 fleet requires 1:1 replacement with the C-40A aircraft in lieu of extensive modernization.
6	NAVELSF Table of Allowance Equipment and Small Arms Simulator	Various	Various	Various	13,964,000	Tactical vehicles and CESE needed to fill shortfalls for support of OEF, OIF, and Homeland Defense. Crane/Small Arms Simulators needed to effectively and efficiently train personnel with limited access to cargo handling cranes and weapons ranges.
7	C-130 Electronic Propeller Control System	18	18	500,000	9,000,000	The propeller system reliability is the number one C-130 aircraft system degrader. Installation of this equipment would create a gain of 375 days of availability.
8	C-9 Service Life Extension Program (SLEP)	15	15	2,000,000	30,000,000	Funds the SLEP for 15 C-9 aircraft, required until the C-40A aircraft can replace the aging C-9 aircraft.

Significant Major Item Shortages

PR	Nomenclature	Total Req'd	# Items Short	Item Cost	Total Shortage Cost	Rationale/Justification
9	F-5 Block Upgrade	44	44	200,000	8,800,000	ALE-40 Chaff/Flare upgrade, Night Vision Devices, RWR software rewrite, and LN-33 INS upgrade are crucial to the safe operation of adversary aircraft essential to fleet training and readiness.
10	EA-6B ACAP Jammer Pods	11	11	1,150,000	12,650,000	Capability gap exists with regard to providing realistic training against Electronic Attack and the Radar Denied Environment.

Chapter 5 United States Air Reserve Components

I. United States Air Force Overview

A. Overall Air Force Planning Guidance

To achieve the United States National Security Objectives, the Joint Chiefs of Staff developed a broad strategy, documented in the *Joint Vision 2020*. Based on the joint strategies laid out in *Joint Vision 2020*, the Air Force (AF) developed its guidance in *America's Air Force Vision 2020* to prescribe an understanding of what air and space power mean to the nation. This Total Force vision relies on the fully integrated air and space power of the Active and Reserve Component forces. The Air Reserve Component (ARC), comprised of Air National Guard (ANG) and Air Force Reserve (AFR) units, supports this "Total Force" policy. The dynamic roles and missions of the ARC are responsive to changing security requirements both on the world stage and at home. This total Force integration ensures the seamless transition of forces and rapid response.

The AEF construct provides a full spectrum of agile and flexible capabilities that can be tailored to meet the requirements of the Combatant Commanders (CC). The Global War on Terrorism has provided a very effective endorsement of the Air Force philosophy, commitment of resources, and quality of support provided to its Reserve Components. Not only were personnel and equipment ready for immediate mobilization and deployment; the ARC continues to provide ready and reliable support

The following table provides a brief synopsis highlighting contributions by the ARC to the AF Total Force Team while supporting contingency and peacetime operations in FY 2004:

The Air Reserve Component Contributions	Equipment	Crews
Weather Reconnaissance	100%	100%
DOD Airborne Fire Fighting Support to U.S. Forest Service	100%	100%
Aerial Spraying	100%	100%
Strategic Interceptor Force	100%	100%
Air Control and Warning	0%	6%
Joint STARS	100%	100%
Aeromedical Evacuation	0%	60%
Tactical Airlift	64%	65%
Air Refueling Tankers	54%	62%
Strategic Airlift	28%	53%
Personnel Recovery	37%	50%
Combat Fighters	35%	36%
Bombers	6%	6%
Space Operations	0%	18%
Unmanned Reconnaissance	0%	7%
Air Sovereignty	100%	100%
Undergraduate Pilot Training	0%	19%
Special Operations Forces	18%	18%

B. Air Force Equipping Policy

The National Defense Authorization Act for FY 2000 directed the services to “conduct a comprehensive examination... of the national defense strategy, force structure, force modernization plans, infrastructure, budget plan, and other elements of the defense program and policies of the United States...” This examination is known as the Quadrennial Defense Review (QDR). The QDR has shifted the basic model for defense planning from threat-based to capabilities-based. This laid the foundation for the USAF equipping policy.

The ARC can be equipped in several ways:

- The Air Force plans, programs, and budgets for the procurement, transfer and modification of ARC weapon systems through the Air Force Corporate Structure.
- Congress authorizes and appropriates funding for the Air Force to fulfill specific ARC requirements.
- A single year procurement appropriation authorized by Congress for the National Guard & Reserve Equipment Appropriation (NGREA).
- Congressional adds to the Active component’s account for Reserve component equipment.

C. Service Plan to Fill Modernization Shortages in the ARC

Effective modernization of ARC assets is the key to remaining a relevant and capable combat ready force. With the onset of the Persian Gulf War in 1991, and because of ensuing force reductions throughout the 1990s, the United States military has become increasingly dependent on the Reserve Components to conduct operational and support missions around the globe. The events of September 11, 2001 validated the Air Force’s Total Force policy. The ARC is working shoulder-to-shoulder with the active component to win the Global War on Terrorism (GWOT) and protect the homeland. No longer a force held in reserve, the ARC shares the tip of the spear.

The Air Force continues to make significant improvement in modernizing and equipping the Reserve and Guard on par with the Active component. However, fiscal constraints still results in shortfalls in ARC modernization and equipage. The Air Force has charged the lead commands with keeping the ARC a relevant and capable fighting force. Success in meeting ARC modernization goals depends on robust interaction with the lead commands and in keeping Congressional budgeting authorities informed of ARC requirements. There are no major issues affecting the full mobilization of the ARC.

D. Current Service Initiatives Affecting RC Equipment

To ensure that the ARC remains a relevant and capable part of the Total Force, the Air Force has committed to modernizing the ARC. There are a number of modifications and modernization efforts underway that will resolve reliability, maintainability, and capability issues for the ARC, several of which are highlighted below. The following are some of the Air Force modernization initiatives that affect the ARC.

1. C-5 Galaxy

a. Avionics Modernization Program (AMP)

This modification is Phase 1 of a two-part modification effort to up-date the C-5 aircraft. The modification consists of replacement of unreliable/unsupportable engine/flight instruments and flight system components. It also installs Communication, Navigation, Surveillance/Air Traffic Management (CNS/ATM) and Secretary of Defense-directed navigation/safety modifications for the Terrain Awareness and Warning System (TAWS) and Traffic Alert and Collision Avoidance System (TCAS).

b. Reliability Enhancement Re-engining Program (RERP)

This program is Phase II of the modernization effort and it is designed to improve reliability, maintainability, and availability while increasing wartime capability rates to at least 75 percent. RERP replaces the TF-39 powerplant with the General Electric (F138-GE-100). The proposed new engine meets Stage III noise/emissions standards while improving payload capability and time-to-climb criteria to meet airspace requirements. Reliability enhancements include upgrades or replacement of: APUs; and upgrades to the electrical, hydraulic, fuel, fire suppression, pressurization/air conditioning systems, landing gear, and airframe systems.

2. F-16 Fighting Falcon

a. Falcon STAR

Increased involvement in operations such as Operations SOUTHERN WATCH, NOBLE EAGLE, and ENDURING FREEDOM has required employment of the F-16 fleet beyond the intended operational spectrum for which the aircraft was developed. As such, the purpose of the Falcon STAR (Structural Augmentation Roadmap) program is to replace or rework known life-limited structural parts to preclude the onset of widespread fatigue damage, maintain safety of flight, enhance aircraft availability and extend the life of affected components up to 8,000 hours. This program is distinct from previous F-16 structures improvement programs that have been identified through the Aircraft Structural Integrity Program (ASIP) as the weapon system has aged and operational use has evolved.

b. Towed Decoys

Towed decoys protect fighters from radio frequency (RF) guided missiles. The ALE-50 RF towed decoy is currently fielded on F-16 Block 40/50. Air Combat Command (ACC) has funded a software integration of the standard F-16 ALE 50 pylons into the F-16 Block 30 aircraft and fielding has begun. ACC is funding pylons for the entire F-16 Block 25-52 fleet to support training and deployment requirements.

3. A-10 Thunderbolt II

a. Precision Engagement

Precision Engagement (PE) is the number one priority for the A-10 community and will transform the A-10 cockpit and capability. The A/OA-10 remains a legacy weapon system, yet is expected to execute critical wartime tasking such as Airborne Forward Air Controller, Close Air

Support, Combat Search and Rescue, and Air Interdiction. The aircraft computer, cockpit displays, and weapons delivery capability is outdated and contributes to high pilot workload. The PE program delivers a new avionics suite, a data link and precision weapons capability that will keep the aircraft viable and increase its lethality and survivability.

4. F-15 Eagle

a. Fighter Data Link (FDL)

The FDL program is the key to future effective combat employment for the F-15. The need to tie together off-board and on-board sensors and to synthesize the resulting data into a clear picture of the entire engagement is essential to the F-15 pilot operating under the Combat Identification (CID) Rules of Engagement found in every theater of operation. “First look-first shoot” tactics are valid for both the F-15 and F-22 and require a robust CID capability. Operational tests and exercises consistently provide clear evidence that the FDL increases the kill ratio for the F-15 many times over the current capability, ensuring the F-15’s lethality well into the 21st century.

b. Night Vision Imaging System (NVIS)

The NVIS Lighting Program modifies F-15 interior and exterior lighting to be compatible with the operational use of Night Vision Goggles (NVG). With this modified lighting, F-15s will be able to operate in the full range of air-to-air mission scenarios. The NVIS cockpit lighting provides NVG compatible lighting external to the instruments and controls in the cockpit. The exterior lighting includes a covert lighting mode and filtering to make the normal aircraft lights NVG friendly.

5. KC-135 Stratotanker

a. Global Air Traffic Management (GATM) Modification

This program will provide an upgraded avionics suite that meets the requirements for aircraft interoperability within the future aerospace environment. The avionics suite will be improved in four major functional areas: communications, navigation, safety and surveillance, and flight deck control. The program includes controller-pilot data link communication, direct voice communication with air traffic control, required navigation performance, and automatic dependent surveillance.

6. C-130 Hercules

a. Phase I - Avionics Modernization Program (AMP)

This program will produce a baseline avionics configuration across the current C-130 fleet. Air Mobility Command, in coordination with ACC, the ARC, and Air Force Special Operations Command, is undertaking the C-130 AMP to consolidate all E, H1, H2, and H3 aircraft into one configuration. The goal is to consolidate existing and projected aircraft modification programs in order to upgrade and standardize the aging C-130 fleet.

7. C-26 Aircraft

a. Forward Looking Infra-Red (FLIR)

The C-26 Westinghouse WF-360 FLIR camera was replaced with a Westcam “Skyball”. This program is now complete. The upgrade also included a sensor controller operating system upgrade, touch screen technology, emergency battery backup, Wulfsburg AM/FM/HF/VHF/UHF radios, and fire detection/suppression for the FLIR pod.

b. Electro-Optical Photographic Cameras

A program is under way to augment the “wet film” capability of the C-26 with a digital camera. This technology will allow digital pictures to be taken and printed onboard the C-26, thus saving days of wet film processing time and allowing law enforcement agents to leave the aircraft with hard copies of imagery data.

8. HC-130 Aircraft

a. Rescue System Upgrades

A low-cost NVIS Compatible Lighting System modification is in the contract phase for the Combat Air Force rescue fleet. A Personnel Locator System will be installed on 210th Rescue Squadron, Kulis, AK, and 129th Rescue Wing, Moffet, CA, aircraft. This system will give rescuers bearing, range, and authentication information on downed aircrew equipped with the PRC-112 survival radio.

E. Service Plan to Achieve Full Compatibility Between AC and RC

Although the ARC generally has older equipment, the Air Force, through the Total Force policy, continues to modernize ARC assets. These modernization efforts allow the ARC to remain relevant and combat ready on par with the Active component. The following sections address, in detail, the ARC’s modernization programs.

II. Air National Guard (ANG) Overview

A. Current Status of ANG

1. General Overview.

The ANG has defended and protected U.S. vital interests both at home and abroad since the formation of the First Aero Company, Signal Corps, New York National Guard in 1908. As an integral component of this nation's Air Force, the ANG tradition of fighting and winning promises to continue. We routinely demonstrate our preparedness and have made significant contributions in Operations Noble Eagle (ONE), Enduring Freedom (OEF), Iraq Freedom (OIF) and the Global War On Terrorism (GWOT). When the President calls us to arms around the globe, the ANG is on the point. Highly experienced ANG teams are entrusted with some of the most demanding OIF and OEF combat missions. In OIF we flew 43 percent of the fighter sorties, 86 percent of the tanker sorties and 39 percent of the airlift sorties. Our citizen airmen remain in Iraq and Afghanistan supporting the transition to democratic governments while continuing to hunt and destroy terrorists at the same time. ANG air defense alert units defend our nation's air sovereignty 24-hours a day, seven days a week.

Terrorist organizations and rogue nations desire to employ weapons of mass destruction against us, and seek access to sensitive technology in their efforts. Consequently, the nature of our enemy has changed and we are shifting our focus to meet these threats. We are evaluating new missions to replace old ones, and adapting existing missions to respond appropriately as we enter a time of great change and challenge for our nation's military forces.

The ANG integrates new technologies, embracing transformational capabilities that are at the leading edge of our modernization challenges. Our force epitomizes the concept of being *Ready, Reliable* and *Relevant* as demonstrated by our commitment to any and all tasking. Across the spectrum of Air Force missions, you'll find examples of Guardsmen making the most of their equipment, training, and experience while bringing the unique professionalism of the Air National Guard to this nation's premier fighting force. Crucial to the combatant commanders' successes are the intelligent modernization efforts of those who understand the importance of giving the right tools to our citizen airmen. Innovative acquisition of off-the-shelf technologies, such as precision targeting pods and data links, have transformed legacy military hardware into some of the best connected and lethal on the battlefield.

We, as a nation, still face dangerous and uncertain times. In the very greatest traditions of this nation, American citizen soldiers and airmen have left behind their families and communities to fight and win the nation's battles. The Founding Fathers would be enormously proud of what their "well regulated militia" has grown into. These are Americans at their best...doing the most difficult of this nation's work.

2. Status of Equipment

a. Equipment On-hand

i. Fighter/Attack/Bomber Aircraft

a) F-16 A/B/C/D Fighter Aircraft

The ANG has over one third of all of Combat Air Force (CAF) F-16 aircraft in 27 squadrons. These aircraft range from the older F-16A/B model to the latest Block 52 F-16C/D.

Block 25/30/32: The majority of ANG F-16 aircraft are within the Block 25/30/32 Mission Design Series (MDS). These aircraft are capable of employing both Sniper XR and Litening AT Advanced Targeting Pods (ATP) along with a wide variety of laser guided and inertially aided munitions (IAMS). The Block 25/30/32 is equipped with the Enhanced Position Location Radio System/Situation Awareness Data Link (EPLRS/SADL) that allows pilots to “see” other SADL and LINK16 airborne platforms and link directly into the Army and Marine Corps tactical net. The ANG will field advanced capabilities in the near future such as Color Multi-functional Displays (CMFDS), Advanced Identification Friend or Foe (AIFF), a new Commercial Fire Control Computer (CFCC) and Joint Helmet Mounted Cueing System (JHMCS). These capabilities make sensor and information received over tactical data links readily available in the cockpit. Lastly, the Block 25/30/32 is the only MDS currently capable of employing the Theater Airborne Reconnaissance System (TARS) that provides tactical reconnaissance capability.



Block 42: The Block 42 aircraft are capable of employing the Sniper XR and Litening AT advanced targeting pods along with a wide variety of laser guided and inertially aided munitions (IAMS). The Common Configuration Implementation Program (CCIP) will begin fielding LINK16 datalink, CMFDs, JHMCS, and other capability improvement programs on the Block 42 in 2006. Finally, the Block 40/42 Operational Requirements Document identifies a need for an “increased performance engine that provides a 20 percent to 30 percent increase in thrust along with improved reliability and maintainability.” The ANG requires 63 F-100-PW-229 engines for these aircraft. Twenty seven have been funded. Installation of these engines in ANG Block 42 aircraft will dramatically increase combat capability and performance.

Block 52: The ANG Block 52 fleet will complete CCIP modernization by the end of FY 2006, including the APX-113 Advanced Identification Friend or Foe System. The ANG is fully mission capable with the HARM Targeting System (HTS), employed Litening in OIF, and began training with the Sniper XR ATP in September 2005. The 169th FW, McEntire ANGB, SC, will be the first operational CAF Block 50/52 unit to be fully capable of employing the Sniper XR in the Destruction of Enemy Air Defenses (DEAD) role, a mission crucial in combat in the future.

b) A/OA-10 Attack Aircraft



The venerable A/OA-10 is noted for its performance in the close air support (CAS) mission. Other missions include combat search and rescue (CSAR) and airborne forward air controller (FAC-A). This aircraft is capable of operating from austere locations and carrying a wide array of munitions. The

six ANG squadrons account for 38 percent of combat-coded A-10s in the CAF. The A-10 is undergoing modification to modernize the cockpit, provide a data link, targeting pod integration, and Joint Direct Attack Munitions (JDAM) capability. Future improvements to the A/OA-10 include a SATCOM radio, an updated Lightweight Airborne Recovery System (LARS) for CSAR missions, and improved SAM threat detection. Tasking in recent conflicts has shifted from low altitude to medium altitude to avoid the more capable SAM threat. The A/OA-10, however, was designed for employment at low altitude and has serious thrust deficiencies in the medium altitude environment. Employment from high temperature, high density altitude and short runways also highlight this thrust deficiency. In order to accomplish the mission, air commanders in the Iraq and Afghanistan must reduce fuel or aircraft munitions loads to ensure operational safety in the combat zones. For many years, the ARC Weapons and Tactics Conference placed engines as a priority for the A-10. Efforts are now underway to upgrade its TF-34-100A engines.

c) F-15 A/B/C/D Air Superiority Aircraft

The ANG has 100% of the F-15 A/B combat-coded aircraft in the CAF assigned to six squadrons. The seventh squadron, 114th Fighter Squadron, Kingsley Field OR, is tasked as an AF Flying Training Unit (FTU), and flies a combination of F-15B, C and D model aircraft. The A/B model aircraft are tasked for the air sovereignty of the Continental United States (CONUS) mission and AEF rotations. All combat-coded and training F-15 aircraft in the ANG are



equipped with MIDS Fighter Data Link (FDL). This upgrade gives ANG F-15 aircraft state-of-the-art capability for situational awareness and interoperability with the CAF F-15 C/D/E fleet. All units are currently equipped with NVGs and NVIS cockpit lighting. In addition, VHF radios have been installed in all ANG F-15s. Current modernization efforts include engine upgrades, Active Electronically Scanned Array (AESA) radar, Joint Helmet Mounted Cueing System (JHMCS), Embedded GPS/INS (EGI), and Digital Radar Warning Receiver (RWR). With ANG funding, ANG F-15s will be equipped with the next generation Air-to-Air Interrogator (AAI) Identification Friend or Foe (IFF) system in late FY 2006, fulfilling a requirement for Mode 5/S capability mandated by Congress. Replacement of ANG F-15 A/Bs with F-15 C/Ds from AC units is ongoing. However, the schedule is fluid due to uncertainties in the F/A-22 delivery schedule and total procurement.

ii. Air Refueling Aircraft

a) KC-135 Air Refueling Tanker Aircraft



The ANG's 24 squadrons represent 45 percent of the total force's aerial refueling aircraft. The desired end-state of the ANG KC-135 force structure is a common fleet of KC-135R, GATM-equipped aircraft. Upgrades high on the priority list are the Airborne Broadcast Intelligence (ABI)/Combat Track II (CTII) Data Link System, Large Aircraft Infrared Countermeasures (LAIRCM), and cockpit NVG-compatible lighting. The ABI/CT II provides a complete picture of air and ground threats while allowing two-way, secure text messaging, transmission of data and imagery to aircrews.

iii. Airlift Aircraft

a) C-5A Strategic Airlift Aircraft

The 105th AW, Stewart ANB, NY flies 13 C-5As; the 164th Memphis, TN is in conversion to the C-5A; and the 167th Martinsburg, WV is planning a FY 2007 conversion. The reliability of the C-5A model continues to be a major concern. Two major modification programs are the Reliability Enhancement and Re-Engining Program (RERP) and the Avionics Modernization Program (AMP), which will significantly improve the C-5A reliability, maintainability, and availability. AMP is planned for all 112 C-5 aircraft, although only 67 aircraft are funded. RERP is also planned for all 112 aircraft; however the AMP modernization must be installed prior to RERP. ANG C-5s will need LAIRCM upgrades for self defense.



b) C-17 Strategic Airlift Aircraft



The C-17 is the new strategic airlifter for the AF, replacing the retired C-141. The C-17 provides delivery of cargo and troops via airland and airdrop from the CONUS direct to main operating bases or forward operating locations. It can also be rigged to evacuate casualties directly from forward operating areas. The 172nd AW in Jackson, MS is the only ANG unit flying C-17s. The 154th AW at Hickam AFB, HI will become an associate C-17 unit in the near future. ANG C-17s need LAIRCM upgrades for self defense.

c) C-130E/H Theater Airlift Aircraft

The ANG comprises 43 percent of the C-130 tactical airlift capability of the MAF. The ANG C-130E/H fleet is dispersed across 25 units. The ANG is working with Congress and AMC to obtain upgrades such as the Low Power Color Radar (APN-241), and LAIRCM upgrades for our fleet. We are also fully engaged with the C-130 AMP and the Center Wing Box (CWB) program along with AMC, AFRC, and AFSOC. The AMP modernization effort will configure all combat delivery C-130 aircraft to a common avionics configuration enabling the aircraft to continue functioning in a joint operational environment throughout the world and across the entire range of military operations.

d) C-130J Theater Airlift Aircraft



The C-130J is the latest generation C-130 incorporating a redesigned, two-crew member flight deck, an advanced technology propeller system, upgraded engines and an integrated digital avionics subsystem. The program continues a modernization effort focused on eventually replacing aging C-130E aircraft. Organized into three wings and one group, the ANG operates the largest number of the C-

130J airlifters. There are twenty-three C-130Js on contract for the ANG; four for the 143rd AW, Quonset Point, RI; five for the 146th AW, Channel Islands, CA; six EC-130Js for the 193rd SOW, Harrisburg, PA and eight for the 135th WG, Baltimore, MD.

iv. Intelligence, Surveillance and Reconnaissance (ISR); Information Operations (IO); and Space

a) E-8C Joint Surveillance Target Attack System (JSTARS)

The JSTARS is a B-707-300 airframe with a fuselage-mounted X-band radar capable of locating, classifying and tracking ground targets day or night and in all weather conditions. A joint Army-AF program, JSTARS supports the war fighters by detecting and tracking ground movements at ranges of more than 150 miles, then data linking the imagery and tracks to ground forces and the CAOC. The Ground Moving Target Indicator (GMTI) capability makes JSTARS a highly coveted asset by all combatant commanders (COCOMs). JSTARS will remain a key ISR and C2 platform well beyond 2020. A low density, high demand (LD/HD) platform, JSTARS operates at a very high OPTEMPO and continues to fly combat missions in both OEF and OIF. The most important requirement is replacement of its engines that can no longer be economically sustained and have limited thrust for today's missions.



b) EC-130J Electronic Warfare Aircraft

This psychological operations aircraft operated by the 193rd SOW, PA ANG is continuing its two-part conversion from the EC-130H to the EC-130J aircraft. The end state will be three EC-130J "Commando Solo" and three "Super J" aircraft modified with the "Modular Solo" roll-on/off capability. Currently, three fully equipped "Commando Solo" aircraft have been delivered; the three "Super J Mod Solo" aircraft are in production with one additional on contract.



c) SENIOR SCOUT

This tactical signals intelligence (SIGINT) collection system is designed to provide near-real-time SIGINT across the spectrum of conflict. The centerpiece of the SENIOR SCOUT system is a roll-on/roll-off, palletized shelter containing collection, processing, and communications equipment that is uploaded into a modified C-130H1/H2. Special signals enhancements and other improvements are being pursued. Network centric cooperative targeting (NCCT), demand



assigned multiple access (DAMA), and common data link (CDL) communications enhancements are also planned. SENIOR SCOUT systems are operated and maintained by the 169th Intelligence Squadron, Utah ANG.

d) SCATHE VIEW

SCATHE VIEW is a quick reaction, roll-on/roll-off imagery capability flown on Nevada's 152nd AW's modified C-130E/H aircraft by the 152nd Intelligence Squadron. During its initial deployment to OIF, SCATHE VIEW was credited with finding vehicle-borne improvised explosive devices, a weapons cache, and saving the lives of ground forces under mortar attack by providing key intelligence to a quick response force. The ANG pursued system modernization and upgrades to provide direct digital data and full motion or mosaic still imagery to the Combined Air Operations Center, deployable ground stations, and hand-held receivers carried by ground forces.

e) F-16 Theater Airborne Reconnaissance System (TARS)

This digital, electro-optical system is the only AF high-speed, penetrating, reconnaissance asset organic to the J/CFACC's forces. Michigan's 127th FW employed the TARS pod extensively during OIF to support close air support (CAS), counter-Improvised Explosive Device (IED) operations, bomb damage assessment (BDA), special operations activities, and pre-strike reconnaissance. Given the success of the deployment, the combatant commander asked for the capability to be returned to theater and sustained indefinitely. The ANG participated in defining support requirements and established the schoolhouse to train active, Reserve, and ANG F-16 Block 30 aircrews, maintenance personnel and imagery analysts for AEF deployments. The ANG supported successful system development and demonstration (SDD) testing of a real-time data link in conjunction with an all-weather, day and night SAR capability as well as the existing EO sensors. The AF tasked the ANG to support follow-on testing and accelerated conversion and deployment of EO pods.



f) The AF Distributed Common Ground System (DCGS-AF)

The AN/GSQ-272 SENTINEL, otherwise known as AF DCGS, is a system providing distributed multi-site, multi-intelligence collection and processing capability. Through its capability for reachback, ANG intelligence units process data from U-2, Global Hawk, Predator, and other ISR systems supporting the global war on terror. It is part of the dynamic, networked intelligence processing structure of the U.S. intelligence community. Also, it is a key component of theater air operations planning and execution. Expansion plans include creation of a Measurement and Signature Intelligence (MASINT) Distributive Exploitation Element at the National Air and Space Intelligence Center (NASIC), Wright-Patterson AFB OH; standup of two additional ANG remote sites; and establishment of ANG associate units at Langley AFB, VA; Fort Gordon, GA; Fort Meade, MD; Kelly AFB, TX; and Hickam AFB, HI.

g) MQ-1 PREDATOR Unmanned Aerial System/Vehicle (UAS/UAV)

The SECAF and CSAF directed that the ANG establish two operational Predator units to support expansion of worldwide Predator operations. Units will be established with an Initial

Operational Capability (IOC) in the summer of 2006. Predator is a key ISR asset in the GWOT and is capable of armed reconnaissance. It sees daily action in both OEF and OIF. With its armed reconnaissance capability, it performs close air support with its two AGM-114 HELLFIRE missiles for U.S. and coalition troops. Because its imagery can be data linked to war fighters directly, Predator answers the requirement for ISR in a dynamic battlefield environment. Each unit will include four aircraft, three Ground Control Stations (GCS) and one Launch and Recovery Element (LRE). Initial operations will be focused on GWOT operations for both steady-state and surge needs for combatant commanders overseas. Future operations may include support to U.S. Northern Command (USNORTHCOM) for homeland defense in coordination with the Department of Homeland Security.

h) Information Operations

The ANG continues to aggressively expand its efforts in the Information Operations (IO) arena by actively supporting operations around the globe, including all national security special events, Operation Noble Eagle, and OEF. The Washington ANG 262nd Information Warfare Aggressor Squadron (IWAS) supports the AF Information Warfare Center (AFIWC). The 262nd IWAS has the most qualified number of Computer Network Operations team chiefs and team members in the Air Force. The AC relies upon the ANG to conduct training for the IWAS community because of their expertise and experience. Other ANG IO units are located in Kansas, Maryland, Vermont, Rhode Island, Delaware, Utah and Texas.



i) Space

The ANG has six units directly supporting AF Space Command (AFSPC). The 137th Space Warning Squadron (SWS), Greeley, CO, provides immediate, worldwide missile warning and space launch detection to NORAD, unified commanders, theater CCs, the Joint Chiefs of Staff, and the President and Secretary of Defense. The unit will convert from Defense Support Program (DSP) to the Space Based Infrared Radar System between FY 2009–2010. The 148th Space Operations Squadron, Vandenberg AFB, CA, operates the MILSTAR Operations Center and controls six MILSTAR secure communications satellites. The unit will transition to the follow-on Advanced Extremely High Frequency (AEHF) satellite in FY 2010–2011. The 153rd Command and Control Squadron (CACS), F.E. Warren AFB, WY, is a Mobile Consolidated Command Center (MCCC) providing a mobile, survivable, and enduring C4ISR capability to the commander of USNORTHCOM. The 213th SWS, Clear AFS, AK, provides tactical warning and attack assessments of ballistic missile attacks against North America and space surveillance capabilities using phased-array radars. The 114th Range Flight, Patrick AFB, FL, provides launch support to the Eastern Launch Range. The 119th CACS, Knoxville, TN, provides direct support to the U.S. Strategic Command's Space Operations Center.



v. Special Airlift Mission Aircraft

a) LC-130 Polar Airlift Aircraft

The LC-130 Polar Airlift Aircraft operated by the 109AW, Schenectady, NY, are ski-equipped C-130s that support airlift operations to cold weather areas where other airlift aircraft cannot operate. The unit operates 14 C-130 aircraft, 10 are ski-equipped LC-130s and 4 are standard C-130s. The LC-130 aircraft have the unique ability to operate from unimproved, deep field, open snow areas using Jet Assisted Take-Off (JATO) solid fuel, rocket motors for additional thrust. Currently the ANG is surveying radar technologies to acquire one that can identify crevasses and penetrate ice fog conditions to improve safety margins when operating in the Arctic and Antarctic.



b) C-38A Special Airlift Aircraft



The 201st Airlift Squadron (DC ANG), Andrews AFB, MD, has two C-38 (Gulfstream G-100) business jets used for DV support. These aircraft will soon reach the end of their programmed life. No replacement aircraft is identified. The unit requires four C-37s (Gulfstream G-Vs) to continue the OSA mission in the future. Four aircraft ensure consistent support and minimize the impact of unplanned maintenance actions.

c) C-40C Special Airlift Aircraft

The C-40C (Boeing 737-700 Business Jet) provides a long-range worldwide 40 to 70 passenger capability to senior DoD officials, foreign dignitaries, members of Congress and executive branch members. The AF leases, and ANG operates, three C-40 aircraft. Two aircraft are in service, while the third is in modification with a planned delivery of March 2006. To ensure effective flight operations, one additional C-40C aircraft is required.



d) C-21 Special Airlift Aircraft

The ANG operates two C-21 aircraft at the 200th Airlift Squadron, Peterson AFB, CO. These aircraft transport high-level DoD personnel to various CONUS locations. All maintenance and upgrades of the AF C-21 fleet are managed by the Oklahoma City Air Logistics Center. Two additional aircraft are desired to improve aircraft availability and meet operational requirements.



e) C-26B Counter Drug Aircraft

The role of this aircraft is expanding to meet ISR requirements CONUS and OCONUS as demonstrated by a deployment to OIF. Additional or new equipment are required to meet the requirements for these expanded missions. The ANG is exploring the benefits of



installing a streaming video downlink that would enable near instantaneous transmission of data to personnel and law enforcement agencies on the ground.

vi. Rescue Aircraft

a) HH-60G Helicopter

FY 2005 brought an external gun mount system to the HH-60 freeing up critically needed cabin space. The ANG installed low profile combat fuel tanks on all ANG HH-60s that provide increased range and sufficient cabin space for two litter patients. An interim defensive armament upgrade will also be fielded in FY 2005. The ANG continues to pursue an upgraded AN/ARS-6 V12 survivor locator radio for the HH-60. This provides the much needed capability to precisely locate aircrew by their survival radios. Additionally, it brings the capability to interrogate and locate the new 406 MHz emergency beacons. The ANG HH-60 requires a new tactical threat receiver to give the pilot critical threat information and the installation of a tactical data link.



b) HC/MC-130 Aircraft

The AAQ-36 Forward Looking Infrared (FLIR) has been installed on all ANG HC-130s. AAQ-24 LAIRCM will be installed during FY 2006 on selected ANG HC-130s. Currently, the generators on ANG MC-130Ps are not capable of sustaining power output in the event of a failed engine. However, the ANG is installing larger more capable generators on all ANG MC-130Ps. In order to retain combat effectiveness, critical shortfalls in both tactical data link and an upgraded AN/ARS-6 V12 survivor locator radio must be addressed. Additionally the Universal Aerial Refueling Receptacle Slipway (UARRSI) remains unfunded.



vii. Air Control Systems

a) AN/MPN-26 Mobile Approach Control System (MACS)

MACS is a mobile radar approach control system that supports precision approaches at austere airfields. The existing AN/MPN-14 being used by the ANG was fielded in 1968. Even with equipment modification and upgrades in 1980s, the system is now logistically unsupportable. The AF has begun an acquisition effort to replace the AN/MPN-14K.

b) Modular Control System (MCS)

MCS provides deployable tactical command and control for the Joint Force Air Component Commander (JFACC). This ground-based system works in conjunction with the airborne elements to include Airborne Warning and Control System (AWCS) and JSTARS to provide command and control of our tasked air forces. The system consists of TYQ-23 operations modules and the TPS-75 tactical radar. Both are 1980s systems that need modernization to meet new threats and operational requirements. The Battle Control System - Mobile, (BSC-M), is in development to replace the MCS. Battle Control System-Fixed (BCS-F)

will be fielded in FY 2006 to replace the aging North American Air Defense Command (NORAD) TSQ-93 air defense system.

c) Air Support Operations Center/Tactical Air Control Party (ASOC/TACP)

ASOCs and TACPs are the most forward-deployed elements of the AF Ground Theater Air Control System (GTACS). These units deploy in direct support of Army combat units to provide planning expertise as the JFACC liaison in the terminal control of CAS. ASOCs use a variety of communications equipment to provide connectivity throughout the theater. They have recently been equipped with the TSQ-209 system with TBMCS functionality. TACPs rely mainly on the MRC-144 communications system consisting of a HMMWV-mounted GRC-206 pallet and man-portable radios. TACPs are in the midst of a CAF-wide modernization program, beginning with the introduction of the PRC-117F multi-band, multi-mode radio which provides satellite communications capability, and the MK-7 laser range finder which provides mensurated target coordinates for precision guided weapons such as the JDAM.

viii. Other Aircraft Systems

a) Modular Airborne Fire Fighting System (MAFFS)

The ANG is an active participant in the U.S. Departments of Agriculture and Interior firefighting efforts that threaten our forest resources and communities. MAFFS is a roll-on/roll-off platform that carries 3000 gallons of fire retardant material. The ANG Requirements Division (ANG/XOR) and the U.S. Forest Service are procuring a second generation system dubbed “MAFFS II.” This “state-of-the-art” system will provide increased capability for fighting forest, wild, and grass fires while retaining the C-130’s primary airlift mission. A total of eight MAFFS II units will be purchased.



b. Average Age of MIE

See Table 2 for the average age of selected major items of equipment. Overall, the average age of aircraft major items of equipment (MIE) within the ANG is about 24 years.

c. Compatibility of current equipment with AC

Compatibility problems exist between ANG and AC equipment in the following areas.

i. F-16A/B (Block 10/15)

The ANG uses F-16A/Bs to support training of foreign pilots under a Foreign Military Sales (FMS) contract. The components of these aircraft are no longer compatible with newer aircraft and require special logistical support. However, Congress has mandated that no funds shall be obligated to modify aircraft not equipped with GPS after FY 2005. Consequently, we are unable to upgrade aircraft systems, and the ANG ability to support and sustain the F-16A/B fleet is in jeopardy.

ii. F-15A/B

In order to be compatible, reliable, and maintainable throughout the F-15A/B service life with the AC F-15s the following issues must be addressed. The APG-63 V(0) suffers from low reliability, maintainability, availability, and performance. The F-15A/B aircraft are equipped with the F-100-PW-100 engine that is difficult to maintain and support. F-15 A/B Tactical Electronic Warfare system which includes the ALR-56A RWR is clearly inferior to the C/D models. F-15A/Bs internal navigation system (INS) must be replaced with the C/D GPS/INS.

iii. KC-135E

The engines on the KC-135E models are becoming less reliable, more costly to maintain and do not provide performance found in the KC-135R model. The lesser thrust limits fuel loads under certain combinations of temperature, density altitude and available runway lengths. Current plans call for reallocating 48 KC-135R models from the AC to the ARC in FY 2004 through FY 2006. Thirty-two will go to the ANG and the remaining 16 go to the AFR.

iv. C-130E/H

The T56-A-7B engines on the C-130E models are becoming less reliable and more costly to maintain. Additionally, they do not provide the all-around improved performance found in the T56-A-15 engines on the C-130H models. This deficiency in thrust prohibits crews from taking full advantage of cargo carrying capacity at high density altitudes as well as affecting maneuvering capability in a threat environment.

d. Maintenance Issues

i. F-16 A/B

The F-16A/B series fighters are no longer considered deployable for combat and the age of the system is significantly affecting supportability and mission readiness. Only one combat-coded F-16A unit exists that will be upgraded to the F-16C as soon as aircraft become available.

ii. JSTARS

The JSTARS aircraft are experiencing skyrocketing costs to repair engines, degraded performance and availability of engines. Replacing the original TF-33 engines will improve supportability, reduce costs, and improve operational performance (additional range, time-on-station, improved fuel economy and thrust available at high temperatures and density altitudes).

iii. MPN-14K Radar Approach System

The MPN-14K radars are well beyond their planned service life, having long passed their point of economical sustainment. They are experiencing excessive downtime and unacceptably low rates of operational availability. Some upgrades have been made to the more than 45-year old equipment, but there are no spare parts available with which to replace failing equipment.

e. Modernization Programs and Shortfalls

i. F-16/A-10 Targeting Pods

The F-16/A-10 requires additional advanced targeting pods to employ precision guided weapons to fulfill the full range of tasking required by combatant commanders. The pod must possess exceptional standoff capability outside of most surface-to-air threats, a third generation FLIR, laser spot track (LST) capability, and superior capability for targeting J-Series weapons as well as being able to accept insertion of emerging technology. The pod must be able to maintain a high fully mission capable (FMC) rate and be supported by AF two-level maintenance.

ii. F-15 AESA

The Active Electronically Scanned Array (AESA) radar replaces the traditional mechanically scanning radar dish by a stationary panel covered with an array of small transmitter-receiver modules. These modules have increased combined power and can perform different detection, tracking, communication, and jamming functions in multiple directions simultaneously. AESA eliminates the hydraulic and electrical systems associated with mechanically operated radars resulting in dramatic improvement of reliability and maintainability. Currently the APG-63 radar is logistically unsupportable due to parts obsolescence and requires reliability and maintainability upgrades. AESA radar for ANG F-15s is critical against asymmetric threats and cruise missiles.

iii. C-130 AN/APN 241 Radars

The APN-59 radar installed on C-130 aircraft suffers from deteriorating reliability, maintainability and availability factors. The AN/APN-241 low power, color radar (LPCR) provides enhanced capability for all-weather, precision airdrop and detection of wind shear.

iv. F-16 APG-68 (V)10

The current APG-68 (V)1 consistently tops the list of highest failure rate items in the fleet. The APG -68 (V)10 will significantly increase pilot survivability and lethality in every mission area to include all weather, air-to-ground targeting.

v. PJ Parachutes

The SOV-3HH parachute and tandem tether parachute will increase the safety of pararescue forces, as well as enhance their high altitude capability. It better supports the additional weight of search and rescue equipment. Additionally, the tandem tether parachute allows unqualified personnel to be attached to the harness and inserted with a qualified jumper.

vi. CRC Body Armor

The Control and Reporting Center (CRC) personnel need body armor for personal protection during deployment to hostile environments.

vii. Tactical Data-links

The A-10, HH-60 and HC/C/EC-130 need tactical data links to connect to the tactical nets of air and ground forces, improve target identification, reduce fratricide and ensure situation awareness in a joint operational environment.

viii. Helmet-Mounted Cueing Systems (HMCS)

The F-15/A-10/F-16 need a HMCS to vastly improve employment of air-to-air and air-to-ground weapons by fusing sensors, displays and employment cue information directly to the pilot.

ix. LAIRCM for C-130, C-5, C-17 and KC-135

LAIRCM is designed to defeat IR guided surface to air missiles using laser-based countermeasures. LAIRCM automatically detects, provides warning and counters these IR missiles without using pyrotechnic expendables. It is designed to fully protect a wide range of mobility aircraft including the C-130. ANG special operations MC/HC-130s will receive the first LAIRCM equipment. Additionally, ANG C-130Js are expected to install LAIRCM as part of the Block 7.0 upgrade funded by AMC.



x. Engines

JSTARS, F-15, A-10, F-16 need engines upgraded or replaced to reduce the cost of sustaining legacy engines, boost performance and thrust, and improve the operational capabilities of the platform. New engines will improve combat readiness, aircrew safety, and reduce the risks to aircrew in combat operations.

f. Overall Equipment Readiness

i. Aircraft

The lack of precision engagement capability, re-engining, and improved defensive systems drive modernization of legacy aircraft to be our number one priority. Ensuring these capabilities support Combatant Commander requirements for emerging OIF and OEF missions is critical.

ii. Other Equipment

Mission equipment for the CONUS air defense system will become unsupportable by FY 2009. Additionally, ANG air traffic control and approach control equipment and facilities are generations behind the AC causing logistics support to be time consuming and overly expensive.

g. Other Equipment Specific Issues

i. New Missions

a) Fighters

F-15C pilot training for ANG and AC pilots is conducted at the 173rd FW, Kingsley Field, OR. This mission will grow as the AC transitions to the F-22. F-16 pilot training for the ANG, AC and allied air forces is conducted at the 162nd FW, Tucson IAP, AZ. In FY 2004 the unit began flying F-16 Block 60 aircraft in anticipation of training UAE pilots. The ANG added two FTUs, one at the 149th FW, Kelly Field, TX, and the other at 178th FW, Springfield, OH. The mission will grow as the AF begins fielding the F-35. The ANG has four fighter FTUs, comprising six squadrons, and one airlift FTU, the 189th AW with one C-130E squadron.

b) Space

The ANG established a detachment in Arizona to conduct an emerging mission for AFSPC. The unit will support upcoming Joint Warfighting capabilities. The objective is to use high altitude balloons to provide a radio-relay capability that will improve situation awareness and enhance critical battlefield communications. Balloon payloads can also be adjusted or fit with additional systems according to requests from various MAJCOMs or customers, to include a homeland defense mission. The unit's peace-time tasking, under the direction of HQ AFSPC/XOT and in coordination with the NAFs and Centers, is to assist in the planning process, develop scenarios, and act as a white force during exercises, inserting space-oriented training events and monitoring reactions of exercise participants.

c) Command and Control

With assignment of the E-8C (JSTARS), the ANG assumed an airborne command and control mission as well as its exceptional ISR capabilities. This is a long-range, air-to-ground surveillance system designed to locate, classify and track ground targets in all weather conditions. While flying in friendly airspace, the joint Army-Air Force program can look deep behind hostile borders to detect and track ground movements in both forward and rear areas. It has a range of more than 150 miles (250 km). These capabilities made JSTARS effective in Operations OEF and OIF. Current forecasts are for long-term end strength of 19 JSTARS aircraft; however, this is beyond the FYDP and therefore planning is for 17 aircraft only.

d) Information Operations

The ANG continues to aggressively expand its efforts in the Information Operations (IO) and Information Warfare (IW) arena standing up several specialized units. The following states are in other process of standing up or have active units in IO/IW: Washington, Kansas, Maryland, Vermont, Rhode Island, Delaware, Texas, DC and Pennsylvania. Because of the unique and dynamic nature of this mission area, ANG units activated to support IO/IW requirements will require extensive, state-of-the-art computer, networking and telecommunications systems and equipment.

e) Homeland Defense

Although primarily manned by the ARNG, WMD Civil Support Teams (CST) are augmented by ANG personnel as part of the Homeland Defense mission. Fifty-five WMD CSTs are authorized by Congress in 31 states. Each team consists of 22 highly skilled, full-time members of the Army and ANG to deploy rapidly to assist a local incident commander in

determining the nature and extent of an attack or incident and provide expert technical advice on WMD response operations.

f) Training

The Florida ANG established an Associate Unit at Tyndall AFB, FL, to provide flight instructors for Air Education and Training Command's F-15C/D FTU, designated Detachment 1, Southeast Air Defense Sector. This is the only associate unit in the ANG.

g) Simulation

The ANG is creating the first Distributed Warfare Squadron in the USAF by transferring the operating location for the Distributed Training Operation Center (DTOC) in Des Moines, IA to State control in FY 2006. The DTOC's capabilities and mission will grow to keep pace with the scope of Distributed Mission Operations in the Air Force over the next four years.

ii. Electronic Warfare

Near term priorities include enhancing situational awareness and increasing aircraft survivability through advancing integrated electronic warfare systems, digital radar warning receivers that simultaneously provide advanced targeting capability, fielding and upgrading infrared countermeasures (IRCM) and sustaining existing electronic warfare equipment.

a) Integrated Electronic Warfare Systems

The F-16 and A-10 aircraft are both outfitted with the ALQ-213 Countermeasures Management systems which interface with and manage the aircraft's entire EW suite. With the fielding of the next software block cycle, the ALQ-213 will be equipped with the ability to automatically manage the entire electronic warfare suite, reducing pilot workload while increasing aircraft survivability. Future efforts include more robust communication between the ALQ-213 and electronic attack pods (ALQ-131/ALQ-184) and hosting of a rangeless electronic warfare training capability.



b) ALR-69A/AT3

The AFRC MC-130E and ANG F-16 Blk30 are leading the way in equipping legacy aircraft with the ALR-69A digital RWR. The ALR-69A combined with a DARPA developed Advanced Tactical Targeting Technology (AT3) program provides highly accurate threat information for defensive actions while simultaneously enabling any networked legacy aircraft to use the AT3 derived position to attack a radiating threat with a "J" series weapon. AT3 is implemented as a net-centric capability installed on multiple aircraft on the network. This transformational program will be tested and first demonstrated on the ANG F-16 Blk30s at the ANG/Air Force Reserve Test Center (AATC) located in Tucson AZ.

c) F-15 Digital Receiver Replacement for the ALR-56C

The ANG leads an AF initiative to replace the existing ALR-56C RWR with an advanced digital receiver having a minimum capability of the ALR-69A/AT3. This digital receiver will be fully integrated with the future F-15 C/D/E.

d) Infrared Countermeasures (IRCM)

Infrared countermeasures has increased in operational priority and, hence in investment. This investment extends to both the combat and mobility forces. On the mobility side, two approaches co-exist. One is to sustain and modernize for relevance our legacy missile warning and flares systems. The other based on funding constraints is to install the latest laser based IRCM systems. The combat forces include efforts to install a missile warning system on the A-10 as well as upgrade the F-16 and F-15 ability to utilize covert IRCM.



e) Sustainment of Current Electronic Warfare Equipment

Legacy aircraft survivability depends a great deal on AF managed legacy electronic warfare (EW) equipment. Examples include: electronic attack systems, ALQ-213 Countermeasures Management System, ALR-69, ALR-56M RWRs, and AAR-47 Missile Warning Receivers. Modernization examples include processor upgrades, unsupportable parts replacement and continued software upgrades. These upgrades are critical in keeping ANG aircraft relevant to evolving threats and missions.



iii. Distributed Mission Operations and Simulation



The key element for this effort is the Distributed Training Operations Center (DTC) located at the 132nd FW, Des Moines, IA. The DTC is responsible for all network management, event control, scenario development, unit DMO scheduling, remote maintenance, remote instruction, and realistic threat insertion for all ANG and AFR DMO assets as well as many AC units. In addition, the DTC manages the distributed network called ARCNET. ARCNET is a mixed bag of networking solutions designed to meet the unique requirements of the Air Reserve Component. In FY 2006, the DTC will transfer to Iowa ANG control as a Detachment/Distributed Warfare Squadron.

The Mission Training Engineering Center (MTEC), collocated with the AF Research Laboratory (AFRL), Mesa, AZ, is a Headquarters ANG Operating Location. It was established in FY 2003 to coordinate technology programs with AFRL and act as the engineering focal point for the ARC to exploit and transition leading edge technology into hardware or software solutions. The ANG currently fund several programs as engineering proofs of concepts to validate application of new technology. The MTEC is also responsible for coordinating with other research organizations to deploy the



Multi-Level Security (MLS) solution. MLS is a major technical hurdle for implementing DMO among platforms with different levels of security.

Recognizing a need for an advanced F-16 trainer, the ANG elected to use multiple acquisition and business strategies to mitigate risk and expedite deployment. The overarching requirement is to deploy low-cost, high fidelity, flight simulators completely interoperable with the devices being fielded by ACC and other commands. Supported by Congressional FY 2005 funding, the ANG is developing the F-16 Full Combat Mission Trainer (FCMT) as the next generation simulator. The FCMT will replace several older systems with initial deployment to Regional Training Centers (RTC) followed by limited deployment to each unit. Each RTC would encompass a four-ship capable of local and long-haul DMO connected through ARCNET.

The E-8C JSTARS training suite consists of both a flight deck and a mission crew simulator. In FY 2006, the 116th ACW will complete the installation of their second Weapon System Trainer (WST) for flight deck training. A second Mission Maintenance Trainer (MMT) is a critical requirement in order to accomplish both initial qualification and continuation training for Battle Managers. Acquisition is estimated to cost between \$12.4M and \$17.6M. As a Low Density/High Demand (LD/HD) platform, JSTARS personnel are frequently deployed to all current theaters of operation. A DMO capability allows a reach-back training capability vital to keeping the crews current while deployed. DMO also reduces the need to divert aircraft to accomplish upgrade/qualification training.

ANG KC-135 boom operators lack a device capable of fully immersive DMO training. The ANG defined a requirement for a high fidelity, low cost, squadron-level simulator that would fit in a standard operations building. The Boom Operator Simulation System (BOSS) begins prototype development in FY 2006.

B. Changes Since Last NGRER

Although the underlying equipping philosophy of the ANG has not changed, significant mission and programmatic changes are underway since the last report. To support a Total Force approach in modernizing the CAF, the ANG has an ongoing, aggressive effort to equip ANG F-16s with Sniper and Litening Advanced Targeting Pods (ATP). ANG's requirement of 232 pods is 63% complete. The F-16 FCMT program was initiated by Congressional action with an appropriation of \$4.9M in 2005.

ANG continues to expand its role in Space and Information Operations Warfare as evidenced by ANG working with the Air Force to integrate and stand up six Predator units within the FYDP with potential for four more outside the FYDP.

C. Future Years Programs (FY 2007–FY 2009)

1. FY 2007 Equipment Requirements

a. ANG Medical Service Transformation

The Expeditionary Medical Support (EMEDS) system provides highly mobile, integrated and multifunctional medical response capabilities for Chemical, Biological, Radiological,

Nuclear and High-Yield Explosives (CBRNE) incidents. During hurricane Katrina relief, EMEDS were the frontline ability to triage, treat and stage patients until civilian sources are capable of absorbing patients into the civilian healthcare system. The ANG Medical Service seeks \$31.5M to purchase nine EMEDS plus 25 platforms to support the National Guard Bureau's CBRNE Enhanced Response Force (CERPF) mission and \$9.0M annually for sustainment. For the WMD first response capability \$25.0M is requested to purchase the initial equipment, supplies, and training with \$12.0M annually thereafter to complete the initial packages and for sustainment



b. ANG Aircraft

The ANG fleet expects continued modernization in FY 2007 and beyond. Refer to details in each previous individual section for modernization. Enhancements include digital video recorders, the Joint Helmet Mounted Cueing System (JHMCS), ALR-69A/AT3 (Advanced Tactical Targeting Technology) and advanced Distributed Mission Training (DMT) simulators, engines, data links, APN-241 radar, LAIRCM and structural modifications. All will remain issues as we fly our aircraft well beyond their designed life.

2. Anticipated New Equipment Procurements

Funding for procurement of major items of ANG combat and direct combat support equipment is programmed by the AC as required to meet planned total force employment plans. The Congress, in their annual budget appropriation, may also direct additional ANG equipment procurements through NAREA. 120 Litening AT targeting pods are in service and additional funds are needed to purchase the ATP for the F-16. In concert with the AC, procurement of ATPs will round out the 160 pod ANG requirement. When upgraded with GPS, CMS, NVIS, and SADL under the CUPID program, these aircraft will be as capable as any other F-16 in the USAF inventory. Additional unfunded modernization programs include the HUD AEU, Advanced IFF, Color displays, Mil Std 1760 wiring, and the JHMCS.

3. Anticipated Transfers from Active Component (AC) to Reserve Component (RC)

The F-15C/D is expected to begin transition from the AC to the ANG combat-coded squadrons starting in FY 2005 and extending into FY 2013. The F-15 distribution and draw down plan has been in coordination for years and continues to fluctuate given uncertainties in the F/A-22 delivery schedule and how many F/A-22s eventually will be procured. Additional KC-135R models may be transferred to replace older D/E aircraft. C-5As from the Active Component are transferring to 164th Memphis, TN and the 167th Martinsburg, WV.

4. Anticipated Withdrawals from RC Inventory

F-15 retirements and draw down continue to be fluid based on a fluctuating F/A-22 delivery schedule and uncertainty about how many F/A 22s actually will be procured. As newer C-130Js are acquired, older C-130E/Hs will be retired. Older KC-135D/E models are being retired as newer KC-135Rs are transferred from the active component.

5. Remaining Equipment Shortages and Modernization Shortfalls at the End of FY 2009

The most significant challenge to ANG readiness is keeping equipment modernized and relevant to future combat. The ANG has the oldest aircraft in the AF inventory. Modernization of the fleet to attain capabilities equivalent to newer platforms, and meet the war-fighting combatant commanders' tasking is critical to a robust and lethal Air Force.

- Fielding the A/OA-10 Precision Engagement (PE) capabilities will cause a split configuration for the ANG 102 aircraft fleet. Half of the ANG aircraft will be modified with PE early, while the other half will wait up to an additional three years. To offset this disparity in capability, the second increment of ANG A/OA-10s receive a "smart" multi-function color display which provides many of the capabilities resident in PE, such as a data link and laser guided bomb capability. This low cost modification will field in 2006.
- Joint Helmet Mounted Cueing System (JHMCS) provides weapons employment capability to achieve first look, first shot advantage in the air-to-air, within visual range arena, and provides weapon symbology and visual cues for locating targets for air-to-ground employment.
- The ANG Block 42 F-16 aircraft requires F-100-PW 229 engines for increased thrust to improve employment options and safety margins. Simultaneous carriage of both a LANTIRN pod and munitions significantly degrades performance of the aircraft equipped with the F-100-PW-200E engine. A total of 63 new engines, 21 of which have been funded, are required for the ANG F-16 Block 42 fleet.
- F-15 Digital Video Recorder is required to fully capture training mission data derived from addition of Fighter Data Link (FDL).
- The F-15 Operational Flight Programs (OFPs) require incorporation of the BOL pilot to vehicle interface (PVI). In addition, purchasing 80 QUP packages of BOL MJU-52 expendables significantly reduces requirements for manpower to load BOL dispensers.
- ANG F-15 aircraft require continued procurement of PW-220E engine kits. A total of 283 engine kits, 87 are funded, are required to complete the ANG F-15 fleet.
- The ANG will install EPLRS/SADL on approximately 50 A-10s, allowing them to join combat theater networks to include Link 16 through gateways. The ANG will migrate to the Joint Tactical Radio System (JTRS) concurrently with the AC forces.
- The PRC-112G personnel recovery radio enables fixing the location of downed aircrew using global satellite positioning, and secure communication. It replaces the PRC-90 radio which will be unsustainable in FY 2009. 2135 units are required to maintain this critical element of search and rescue capability.
- To support the capability for using NVGs, the C-130s need a fully NVIS compatible cockpit. While most new C-130 aircraft are NVIS compatible, the ANG's C-130E and 104 C-130H2 aircraft are not. The C-130 AMP will provide all C-130 E/H aircraft with a NVIS compatible cockpit.
- With the advent of net-centric warfare, all major weapons systems must be equipped with data links that have waveforms used in the combat theaters. In parallel is the need to train the war fighters in a net-centric environment. Consequently, the Combat Readiness

Training Centers must be equipped with Link 16 and EPLRS capable data links to provide a relevant training environment.

- C-130Js are replacing aging C-130 aircraft used by the ANG. The C-130J is the latest generation C-130 that incorporates a redesigned, two-crew member flight deck, a higher performance engine coupled with six-bladed propeller, and an integrated digital avionics subsystem. Replacement of C-130Es with the J model will significantly improve reliability, maintainability and availability of the fleet.
- All combat coded JSTARS aircraft still have their original TF-33 engines. Exploding repair costs, diminished performance, and attendant operating restrictions impact the effectiveness of the aircraft.
- Four C-37 (Gulfstream 5s) aircraft are required at the 201st AS Andrews AFB, MD to replace the aging C-38 fleet. These aircraft will support Congressional, Executive Branch, DoD, AF and ANG travel missions worldwide. This aircraft routinely responds to numerous taskings for smaller groups. Four aircraft are required to take advantage of scheduling, training, and aircraft reserve efficiencies that a full fleet provides.
- The AN/MPN-14K radar attained IOC in the 1950s. Due to the age of the equipment there are no spare parts remaining to maintain failing equipment. Efforts to implement a replacement program have been slow and, as yet, not fully successful.
- The ANG needs \$60.0M to replace 170 fire trucks and a budget line of \$15.0M per year to provide replacement and sustainment of the fleet. At most locations, the fire trucks and rescue vehicles have exceeded their expected life by many years and are failing at an increasing rate. Besides risking aircrew and aircraft safety, we are in jeopardy of being in violation of Federal Aviation Administration regulations at civil airports
- The ANG requires \$10.1M to fill requirements for M1145 armored HMMWVs with 0 assigned of a total authorized 66 vehicles. The ANG is not expected to reach its authorized total throughout the FYDP. With limited funding for vehicle replacement AF-wide, the fleet will suffer shortfalls in available protective capability of this vehicle.
- The ANG's only location providing heavy equipment wartime skills training needs \$12M to replace heavy equipment that supports the Regional Equipment Operators Training Site, Fort Indiantown Gap, PA. In dire need of replacement, the equipment is well beyond its economic life. Because of cost, it is a very low priority within AF/ANG budgets—it is not funded.
- The ANG has a current budget shortfall of \$60M for chemical suits and protective equipment driven by a renewed emphasis on NBC programs.
- The ANG Security Forces have vehicles ill suited for their required mission and require approximately \$20M dollars to update and equip their vehicle fleet.
- The ANG requires \$8.5M to replace aging HMMWVs.
- The ANG needs \$16.5 M to replace 40 aging 25K Loaders with an average age of 17 years.
- The ANG Medical Service requires \$59.5M to purchase 17 EMEDS. Each EMEDS costs \$3.5M. An EMEDS will be committed to each of the ten Federal Emergency Management Agency (FEMA) regions.

- The ANG Medical Service requires \$1M to purchase ten BNBC equipment sets to support ten BNBC Defense Teams. Each BNBC set costs \$100K.
- The ANG requires \$3.4 M to purchase 20 patient decontamination units. This equipment will support responses to WMD events. Each set of equipment costs \$170K.

6. Other Comments

NGREA funds play a major role in the equipment modernization program within the ANG. Small amounts of discretionary NGREA funds provide the catalyst for significant enhancements in combat capability. Innovative equipment modernization and associated business practices utilizing NGREA have seeded low cost, high pay-off programs that not only benefited the ANG, but the AC and AFR as well. We need this discretionary NGREA to continue to modernize and provide the very best equipment our citizen soldiers deserve as they defend this nation against our adversaries. With it we are able to quickly field the 80% solution at 20% of the cost.

D. Summary

NGREA is vital to ANG modernization efforts. Due to the need to fully fund ongoing operations and continued pressure on defense budgets, obtaining adequate funding for procuring equipment and modernization is a challenge. We cannot maintain the readiness of our equipment and achieve our modernization goals that transform the ANG without adequate funding.

The ANG will continue to adapt to meet the needs of the combatant commanders and AEF requirements for combat and combat support forces. The ANG is fighting in Afghanistan and Iraq to support transition to democracies, and we are ready to take the fight to the far reaches of the globe in support of national military strategy. We are ready to respond to any short notice tasking, anywhere in the world, with fully combat trained professionals equipped with aging, but capable weapon systems.

Consolidated Major Item Inventory and Requirements

NOTE: This table provides a comprehensive list of selected major items of equipment. It provides the quantity on-hand (QTY O/H) projected to be in the inventory at the beginning/end of the selected fiscal year (FY). It also provides the quantity required (QTY REQ) needed to meet the full wartime requirements of the Reserve component. In accordance with Title 10, the QTY REQ number provides the recommendations as to the quantity and type of equipment which should be in the inventory of each Reserve component. Unit cost values are in dollars.

Nomenclature	Equip No.	FY 2007 Unit Cost	Begin FY 2007 QTY O/H	Begin FY 2008 QTY O/H	Begin FY 2009 QTY O/H	End FY 2009 QTY O/H	End FY 2009 QTY REQ
AIR REFUELING							
AIR REFUELING, KC-135E	KC-135E	\$44,000,000	65	36	0	0	0
AIR REFUELING, KC-135R/T	KC-135R/T	\$17,700,000	146	152	158	158	143
AIR SUPPORT							
AIR SUPPORT, OA-10A	OA-10A	\$10,700,000	21	21	21	21	18
AIRLIFT							
AIRLIFT, C-130E	C-130E	\$12,400,000	34	28	24	22	22
AIRLIFT, C-130H	C-130H	\$29,200,000	133	128	120	110	110
AIRLIFT, C-130J	C-130J	\$64,000,000	24	24	24	24	24
AIRLIFT, C-17A	C-17A	\$219,200,000	8	8	8	8	8
AIRLIFT, C-5A	C-5A	\$119,300,000	17	29	33	33	30
AIRLIFT, LC-130H ⁽¹⁾	LC-130H	\$71,000,000	10	10	10	10	10
ELECTRONIC WARFARE							
EW, E-8C	E-8C/AOT	\$251,500,000	18	18	18	18	14
EW, EC-130E	EC-130E	\$28,000,000	2	2	2	2	2
EW, EC-130J	EC-130J	\$90,000,000	6	6	8	9	4
FIGHTER							
FIGHTER, A-10A	A-10A	\$10,700,000	78	77	76	74	72
FIGHTER, F-15A	F-15A	\$29,000,000	80	35	25	13	13
FIGHTER, F-15B	F-15B	\$29,000,000	13	8	8	3	2
FIGHTER, F-15C	F-15C	\$31,000,000	58	80	87	96	83
FIGHTER, F-15D	F-15D	\$31,000,000	5	8	12	13	12
FIGHTER, F-16A	F-16A	\$15,200,000	39	39	35	33	24
FIGHTER, F-16B	F-16B	\$15,200,000	12	12	12	12	10
FIGHTER, F-16C	F-16C	\$19,500,000	422	399	373	346	314
FIGHTER, F-16D	F-16D	\$19,500,000	42	46	44	41	32

Consolidated Major Item Inventory and Requirements

Nomenclature	Equip No.	FY 2007 Unit Cost	Begin FY 2007 QTY O/H	Begin FY 2008 QTY O/H	Begin FY 2009 QTY O/H	End FY 2009 QTY O/H	End FY 2009 QTY REQ
OPERATIONAL SUPPORT							
OP SUPPORT, C-21A	C-21A	\$3,100,000	2	2	2	2	2
OP SUPPORT, C-26B	C-26B	\$1,500,000	11	11	11	11	11
OP SUPPORT, C-32B	C-32B	\$91,000,000	2	2	2	2	2
OP SUPPORT, C-38A	C-38A	\$12,000,000	2	2	2	2	2
OP SUPPORT, C-40C	C-40C	\$70,000,000	3	3	3	3	2
RESCUE							
RESCUE, HC-130N/P	HC-130N/P	\$19,100,000	9	9	9	9	7
RESCUE, HH-60G	HH-60G	\$17,600,000	18	18	18	18	15
RESCUE, MC-130P	MC-130P	\$75,000,000	4	4	4	4	4
MISCELLANEOUS EQUIPMENT							
FIRE FIGHTING / CRASH VEHICLE	P-19	\$353,000	170	170	170	170	170
HMMWV, ARMORED	M1145	\$153,030	66	66	66	66	66
EMEDS	EMEDS	\$3,500,000	17	17	17	17	17
25K LOADERS		\$412,500	40	40	40	40	40
(1) Four LC-130 are NSF-owned.							

ANG

Average Age of Equipment

Table 2

<i>NOTE: This table provides the average age of selected major items of equipment. The average age provides a projected average age of the fleet at the start of FY 2006.</i>			
Nomenclature	Equip No.	Average Age	Remarks
AIR REFUELING			
AIR REFUELING, KC-135E	KC-135E	46	EIR has taken ~30 a/c off the flying schedule. Several vital mods not scheduled since E-models were to retire w/in 5 yrs
AIR REFUELING, KC-135R	KC-135R	44	
AIR REFUELING, KC-135D	KC-135D	39	
AIR REFUELING, KC-135T	KC-135T	45	
AIR SUPPORT			
AIR SUPPORT, OA-10A	OA-010A	24	Many A/OA-10 wings have exceeded service life. Funding required for 76 replacement wings
AIRLIFT			
AIRLIFT, C-130E	C-130E	41	Center Wing Box issues driving flight restrictions/retirements
AIRLIFT, C-130H	C-130H	16	
AIRLIFT, C-130J	C-130J	4	
AIRLIFT, HC-130N	HC-130N	11	
AIRLIFT, HC-130P	HC-130P	39	
AIRLIFT, MC-130P	MC-130P	38	
AIRLIFT, LC-130H	LC-130H	13	
AIRLIFT, C-17A	C-017A	1	
AIRLIFT, C-5A	C-5A	34	Potentially grounding conditions w/big \$\$ fixes looming in next 1-2 years (crown skins/contour box beam frame)
OPERATIONAL SUPPORT			
AIRLIFT, C-21A	C-21A	17	
AIRLIFT, C-26B	C-26B	10	
AIRLIFT, C-40C	C-40C	1	
AIRLIFT, C-32B	C-32B	1	
ELECTRONIC WARFARE			
EL WARFARE, E8-C	E-008C	5	
EL WARFARE, EC-130E	EC-130E	41	
EL WARFARE, EC-130J	EC-130J	4	
FIGHTER			
FIGHTER, A-10A	A-010A	24	See comments for OA-10
FIGHTER, F-15A	F-015A	27	Wing/Vertical Stabilizer structural issues impacting MC rate
FIGHTER, F-15B	F-015B	27	Wing/Vertical Stabilizer structural issues impacting MC rate
FIGHTER, F-15C	F-015C	23	Wing/Vertical Stabilizer structural issues impacting MC rate
FIGHTER, F-15D	F-015D	24	Wing/Vertical Stabilizer structural issues impacting MC rate
FIGHTER, F-16A	F-016A	22	
FIGHTER, F-16B	F-016B	22	
FIGHTER, F-16C	F-016C	17	
FIGHTER, F-16D	F-016D	16	

Service Procurement Program - Reserve (P-1R)

<p><i>NOTE: This table identifies the dollar value of equipment programmed to be procured with Service procurement funds as identified in the P-1R exhibit of the FY 2007 President's Budget Submission. All values are costs in dollars, and ammunition procurements have been excluded. Deliveries of procured equipment normally take one to two years before they arrive in the inventory; e.g., items procured in FY 2007 would be expected to arrive in RC inventories in FY 2008 or FY 2009.</i></p>				
Nomenclature	FY 2007	FY 2008	FY 2009	Remarks
MODIFICATION OF INSERVICE AIRCRAFT				
A-10	21,056,000	20,638,000	7,344,000	
F-15	39,670,000	17,781,000	56,580,000	
F-16	101,040,000	91,699,000	80,305,000	
C-5	23,070,000	53,696,000	73,003,000	
C-17A	12,319,000	16,372,000	34,271,000	
C-32A		1,624,000	1,674,000	
C-130	87,507,000	149,071,000	230,697,000	
C130J MODS	19,189,000	17,515,000	23,193,000	
C-135	39,181,000	33,847,000	35,714,000	
E-8	138,162,000	150,932,000	153,720,000	
H-60	3,297,000	5,194,000	1,530,000	
AIRCRAFT SUPPORT EQUIPMENT AND FACILITIES				
COMMON SUPPORT EQUIPMENT	25,424,000	21,619,000	20,909,000	
OTHER PRODUCTION CHARGES	14,244,000	16,645,000	14,192,000	
VEHICULAR EQUIPMENT				
HIGH MOBILITY VEHICLE (MYP)	929,000	1,297,000	1,470,000	
HMMWV, ARMORED	169,000	171,000	174,000	
RUNWAY SNOW REMOVAL AND CLEANING EQUIPMENT	10,591,000	8,702,000	7,299,000	
ITEMS LESS THAN \$5M (VEHICLES)	3,099,000	4,000,000	4,752,000	
ELECTRONICS AND TELECOMMUNICATIONS EQUIP				
NATIONAL AIRSPACE SYSTEM	2,581,000	4,336,000	4,381,000	
THEATER AIR CONTROL SYS IMPROVE	18,370,000	18,608,000	18,944,000	
WEATHER OBSERVATION FORECAST	3,896,000	2,439,000	3,143,000	
AF GLOBAL COMMAND & CONTROL SYS	527,000	648,000	654,000	
COMBAT TRAINING RANGES	1,698,000	1,688,000	1,680,000	
THEATER BATTLE MGT C2 SYSTEM	613,000	3,413,000	1,706,000	
BASE INFO INFRASTRUCTURE	3,681,000	5,516,000	14,285,000	
NAVSTAR GPS SPACE	162,000	149,000	139,000	

Service Procurement Program - Reserve (P-1R)

Nomenclature	FY 2007	FY 2008	FY 2009	Remarks
TACTICAL C-E EQUIPMENT	19,933,000	27,876,000	40,013,000	
BASE COMM INFRASTRUCTURE	31,221,000	31,789,000	32,528,000	
OTHER BASE MAINTENANCE AND SUPPORT EQUIP				
NIGHT VISION GOGGLES	270,000	1,259,000	1,286,000	
MECHANIZED MATERIAL HANDLING EQUIP	949,000	4,152,000	4,245,000	
ITEMS LESS THAN \$2M (BASE SUPPORT)	5,988,000	6,231,000	6,416,000	
TOTAL	\$628,836,000	\$718,907,000	\$876,247,000	

National Guard and Reserve Equipment Appropriation (NGREA) Procurements

NOTE: This table identifies the dollar value of equipment originally programmed to be procured with the National Guard and Reserve Equipment Appropriation (NGREA). These funds are available for a three-year period from the year of appropriation. Deliveries of procured equipment normally take one to two years from date of procurement before they arrive in the inventory; e.g., items procured in FY 2007 would be expected to arrive in RC inventories in FY 2008 or FY 2009. All values are costs in dollars.

Nomenclature	FY 2004	FY 2005	FY 2006	Remarks
PRECISION STRIKE				
HC-130 APN-241 COLOR RADAR	1,800,000			
TARGETING PODS	33,600,000	1,250,000		
F-15 JOINT HELMET MOUNTED CUEING SYSTEM	4,000,000	5,000,000		
F-16/A-10 HELMET MOUNTED CUEING SYSTEM INTEGRATION		2,000,000	3,000,000	
F-16/A-10 TARGETING POD ENHANCEMENTS			500,000	
F-16 AVIONICS ENHANCEMENT			800,000	
DATA LINK/COMBAT ID				
F-15 AIR-TO-AIR IDENTIFICATION/FRIEND OR FOE (AAIF)	4,176,000			
F-16 AIR-TO-AIR IDENTIFICATION/FRIEND OR FOE (AAIF)	10,000,000			
DISTRIBUTED COMMON GROUND SYSTEM (DCGS)	5,832,000			
EAGLE VISION	1,998,000			
F-16 COLOR DISPLAYS	11,502,550	6,985,300		
F-16/A-10 ROVER DATA LINKS FOR LITENING AT		4,200,000		
A-10 SMART COLOR DISPLAY		4,500,000		
KC-135 ABI/COMBAT TRACK II SYSTEMS		4,900,000		
PRC-90 SURVIVAL RADIO		348,000		
A-10/KC-135 BEYOND LINE OF SIGHT (BLOS) RADIOS			4,750,000	
A-10/HH-60/HC-130 SITUATIONAL AWARENESS DATALINK			2,740,000	
C-130/KC-135 COCKPIT DISPLAYS			1,907,000	
KC-135 ANTENNAS			1,000,000	
TACTICAL AIR CONTROL PARTY (TAC-P) TERMINAL ATTACK CONTROLLER KIT			500,000	
ENHANCED SURVIVABILITY				
C-130 LARGE AIRCRAFT INFRA-RED COUNTERMEASURES (LAIRCM)	10,000,000	15,000,000		
HC-130 LARGE AIRCRAFT INFRA-RED COUNTERMEASURES (LAIRCM)		17,400,000		
PARARESCUE (PJ) / COMBAT RESCUE OFFICER (CRO) PATIENT SIMULATOR	1,000,000			
F-16 BLK 42 -229 ENGINES	7,300,000			
F-15 -220E ENGINE KITS (LINE ITEM SPECIFIED)	20,000,000			
F-16 ALR-69 ANTENNA OPTIMIZATION	2,400,000			
A-10 FULL MISSION TRAINER SIMULATOR	2,500,000			
F-16 EPLRS ANTENNAS		5,380,000		

National Guard and Reserve Equipment Appropriation (NGREA) Procurements

Nomenclature	FY 2004	FY 2005	FY 2006	Remarks
TACTICAL AIR CONTROL PARTY (TAC-P) KITS & SPARE PARTS		8,830,000		
HH-60 200 GALLON FUEL TANKS		2,800,000		
C-130J ARMOR KITS		768,000		
F-15 BOTTOM LAUNCHER (BOL) LOADERS		280,000		
DISTRIBUTED TRAINING OPERATIONS CENTER (DTOC) / DISTRIBUTED MISSION TRAINING (DMT) FUNDING		2,998,700		
F-16 BLK 42 -229 ENGINES		9,200,000		
A-10/F-16 DEFENSIVE SYSTEMS UPGRADE			2,050,000	
A-10/HH-60/HC-130 SURVIVAL RADIOS			292,000	
C-130 CHAFF/FLARE DISPENSER SWITCHES			495,000	
HH-60/A-10 DISPLAYS			2,500,000	
HH-60 GUNNER SEATS			1,260,000	
JSTARS TRAFFIC ALERT AND COLLISION AVOIDANCE SYSTEM (TCAS)			1,180,000	
PARARESCUE (PJ) / SPECIAL TACTICS (ST) / COMBAT RESCUE OFFICER (CRO) OXYGEN SYSTEM			320,000	
PROPULSION MODERNIZATION				
F-15 220E ENGINE KIT			300,000	
SIMULATION SYSTEMS				
F-16 MISSION TRAINING SYSTEM			1,000,000	
24-HOUR OPERATIONS				
NIGHT VISION GOGGLES	3,001,050	1,000,000		
ENHANCED NIGHT VISION GOGGLES		720,000		
CLASSIFIED PROGRAM		5,000,000		
C-130/KC-135 AUTOMATED AIRCREW EQUIPMENT KITS			1,424,000	
TRAINING				
C-130 VIRTUAL ELECTRONIC COMBAT TRAINING SYSTEM (VECTS)			2,260,000	
VULNERABILITY ASSESSMENT AGGRESSOR OPERATIONS			850,000	
DIGITAL NETWORK TARGET RANGE			470,000	
FY 2006 TITLE IX NGREA EQUIPMENT				
RESCUE AND SECURITY POLICE EQUIPMENT				
RESCUE KITS				
DURABLE INFLATABLE BOAT PACKAGES			505,875	
RESCUE EQUIPMENT PACKAGES			239,040	
UNIT AUTONOMOUS OPERATIONS KIT			166,800	
SECURITY FORCES DEPLOYED EQUIPMENT PACKAGES			736,400	
SPECIALIZED CSAR RUCKS			25,000	
INDEPENDENT, SUSTAINED OPERATIONS				
BASE SHELTERS			500,000	
IRIDIUM PHONES			27,720	
SHORING KITS			224,000	

National Guard and Reserve Equipment Appropriation (NGREA) Procurements

Nomenclature	FY 2004	FY 2005	FY 2006	Remarks
GROUND CONTROL FLYAWAY SYSTEMS			60,000	
PRC-117 RADIOS			935,856	
ENHANCED DISASTER RESPONSE CAPABILITY				
RESCUE DEPLOYED EQUIPMENT PACKAGES			14,900,000	
RAPID AIRFIELD REPAIR AND RESTORATION				
AIRFIELD LIGHTING KITS			35,000	
SURVEYORS EQUIPMENT (LANDING SITES)			105,000	
PROWLER VEHICLES FOR OPERATIONS			75,000	
FIELD RADIO & TELEPHONE EQUIPMENT PACKAGES			2,241,039	
AERO MEDICAL EQUIPMENT				
EMERGENCY KITS				
EXPEDITIONARY MEDICAL SUPPORT KIT			2,000,000	
SPEAR MEDICAL KITS			700,000	
COMMUNICATION AND AUTOMATION				
IRIDIUM SATELLITE PHONES			60,000	
INMARSAT RADIOS			4,110,000	
800 MHZ RADIOS			2,000,000	
C2 NETWORK NODES			548,000	
VEHICLES PLUS SUPPORT				
HIGH MOBILITY MULTI-PURPOSE WHEELED VEHICLES (HMMWV)			1,000,000	
LIGHT MEDIUM TACTICAL VEHICLES (LMTV)			4,400,000	
AIR CONDITIONING UNITS (REMOTE OPERATIONS)			400,000	
PORTABLE SECURE FM RADIOS (REMOTE OPERATIONS)			312,000	
EMERGENCY MOBILE MEDICAL TREATMENT FACILITY			8,000,000	
CIVIL ENGINEERING				
HEAVY EQUIPMENT & CAPABILITY ENHANCEMENTS				
EXCAVATORS			2,259,000	
CRAWLER TRACTORS			1,726,400	
LOADERS			3,288,000	
GRADERS			1,695,624	
CRANES			1,620,000	
DUMP TRUCKS			2,871,000	
REO/RTS SUPPORT FACILITY (MOBILE)			10,000,000	
FIRE FIGHTING VEHICLES				
P-19 FIREFIGHTING VEHICLES & ENHANCEMENTS			4,935,000	
P-10 FIREFIGHTING VEHICLES			224,000	
P-18 FIREFIGHTING VEHICLES			289,000	
AUSTERE LOCATION EQUIPMENT (RED HORSE)				
EXCAVATORS			1,204,800	
CRAWLER TRACTORS			863,200	
LOADERS			1,438,500	

National Guard and Reserve Equipment Appropriation (NGREA) Procurements

Nomenclature	FY 2004	FY 2005	FY 2006	Remarks
GRADERS			847,812	
CRANES			720,000	
DUMP TRUCKS			1,479,000	
P-19 FIREFIGHTING VEHICLE			1,410,000	
RED HORSE GENERATORS & SUPPORT EQUIPMENT			5,000,000	
LOGISTICS AND SERVICES SUPPORT				
VEHICLE SUPPORT - UTILITY TRUCKS			1,100,000	
EQUIPMENT FOR INDEPENDENT OPERATIONS				
150-PERSON BASIC EXPEDITIONARY AIRFIELD RESOURCES (BEAR) KITS			11,300,000	
550-PERSON BEAR KITS			23,000,000	
RADIOS/SATELLITE PHONE			100,000	
SINGLE PALLET EXPEDITIONARY KITCHENS (SPEK)			5,000,000	
COMMAND AND CONTROL				
NATIONWIDE NETWORK MODERNIZATION				
ROUTERS			4,700,000	
INSTALLATION & CIRCUIT COSTS			1,300,000	
CELL PHONE RESTORAL KITS			10,000,000	
NGB DIRECTORATE FACILITY C2 NODE			5,000,000	
DEPLOYABLE WIRELESS LAN			5,400,000	
SECOND LEVEL MOBILE NETWORK BACKUP			1,000,000	
HANDHELD FIRST RESPONDER RADIO BRIDGE			3,000,000	
HARDENED COMMAND AND CONTROL NODE			150,000	
INTERNATIONAL MARITIME SATELLITE RADIOS			2,000,000	
COMMUNICATION AND DATA LINKS				
ROVER DATA LINK TRANSMITTERS			3,500,000	
MRC-144 MOBILE RADIOS			321,200	
AIRCRAFT EQUIPMENT				
C-130 SCATHE VIEW ISR PLATFORM IMPROVEMENTS				
LINE OF SIGHT (LOS) - BEYOND LINE OF SIGHT (BLOS) DATA LINKS			8,400,000	
AIRBORNE INFORMATION TRANSMISSION (ABIT) COMMON DATA LINKS (CDL)			500,000	
RC-26 AIRCRAFT EQUIPMENT				
ISADS PROCESSOR UPGRADE			2,500,000	
ABIT CDL DATA LINKS			1,300,000	
FORWARD-LOOKING INFRARED SENSOR (FLIR) REPLACEMENT			14,000,000	
SEARCH AND RESCUE ENHANCEMENT				
C-130 APN-241 RADAR			800,000	
TARGETING POD			1,400,000	
DISPLAY IMPROVEMENTS				
HH-60 COLOR DISPLAYS			2,000,000	
LIGHTWEIGHT AIRBORNE RADIO SYSTEM (LARS) UPGRADES			2,500,000	

National Guard and Reserve Equipment Appropriation (NGREA) Procurements

Nomenclature	FY 2004	FY 2005	FY 2006	Remarks
FUNCTIONAL AREA SUPPORT				
COMBAT WEATHER EQUIPMENT & COMMUNICATIONS				
NIGHT VISION GOGGLES			1,000,000	
PRC-117 RADIOS			1,000,000	
SAFETY EQUIPMENT - ALL TERRAIN UTILITY VEHICLES			200,000	
NIGHT VISION GOGGLES			1,200,000	
TOTAL	\$119,109,600	\$98,560,000	\$229,447,266	

Projected Equipment Transfer/Withdrawal Quantities

NOTE: This table portrays the planned equipment transfers (Active to Reserve), withdrawals (-), and decommissioning (-). Transferred equipment is commonly called "cascaded equipment," or equipment that is provided to the RC once the Active receives more modern equipment. Although this table highlights a three-year period, many Services will not know exact quantities of transfers or withdrawals until year of execution, due to the uncertainty of the procurement/delivery cycle of new equipment.

Nomenclature	Equip No.	FY 2007 Qty	FY 2008 Qty	FY 2009 Qty	Remarks
AIR REFUELING					
AIR REFUELING, KC-135E	KC-135E	-29	-36		
AIR REFUELING, KC-135R/T	KC-135R/T	+6	+6		
AIRLIFT					
AIRLIFT, C-130E	C-130E	-6	-4	-2	
AIRLIFT, C-130H	C-130H	-5	-8	-10	
AIRLIFT, C-5A	C-5A	+12	+4		
ELECTRONIC WARFARE					
EW, EC-130J	EC-130J		+2	+1	
FIGHTER					
FIGHTER, A-10A	A-10A	-1	-1	-2	
FIGHTER, F-15A	F-15A	-45	-10	-12	
FIGHTER, F-15B	F-15B	-5		-5	
FIGHTER, F-15C	F-15C	+22	+7	+9	
FIGHTER, F-15D	F-15D	+3	+4	+1	
FIGHTER, F-16A	F-16A		-4	-2	
FIGHTER, F-16C	F-16C	-23	-26	-27	
FIGHTER, F-16D	F-16D	+4	-2	-3	

FY 2003 Planned vs Actual Procurements and Transfers

NOTE: This table compares what the Service planned to procure and transfer to the RC in FY 2003 with actual procurements and transfers. FY 2003 is selected as these are the most recent funds to expire. Since the procurement cycle is normally one to two years from funding to delivery, this table identifies only what has been delivered through the end of FY 2005. Procurement and NGREA columns reflect cost values in dollars.

Nomenclature	Equip No.	FY 2003 Transfers (# of items)		FY 2003 Procurements (\$s)		FY 2003 NGREA (\$s)	
		Plan	Actual	Plan	Actual	Plan	Actual
FIGHTER, F-16A	F-016A	-23	-23				
FIGHTER, F-16B	F-016B	-2	-2				
FIGHTER, F-16C	F-016C	+16	+16				
FIGHTER, F-16D	F-016D	+1	+1				
OPS SPT, C-22B	C-022B	-1	-1				
A-10				4,400,000	5,100,000		
F-15				0	28,100,000		
F-16				67,800,000	50,500,000		
C-5				13,100,000	9,900,000		
C-130				27,900,000	38,200,000		
C-135				40,000,000	45,000,000		
H-60				6,400,000	7,300,000		
OTHER AIRCRAFT				6,600,000	0		
AIRCRAFT SUPPORT EQUIPMENT & FACILITIES				52,100,000	21,000,000		
OTHER PRODUCTION CHARGES				0	2,000,000		
BUSES				2,500,000	3,048,000		
TRUCK CARGO UTILITY 4x4				1,900,000	1,900,000		
TRUCK CARGO UTILITY 4x2				1,700,000	1,690,000		
TRUCK MAINTENANCE/UTILITY/DELIVERY				3,100,000	3,180,000		
HIGH MOBILITY VEHICLE				3,100,000	3,100,000		
TRACTOR, AIRCRAFT, TOW				2,100,000	2,125,000		
TRACTOR, TOW, FLIGHTLINE				1,900,000	2,890,000		
TRUCK HYDRANT FUEL				1,000,000	950,000		
TRUCK, F/L 10,000LB				900,000	840,000		
HALVERSON LOADER				1,700,000	0		
RUNWAY SNOW REMOVAL AND CLEANING				5,200,000	3,300,000		
INTELLIGENCE COMM EQUIPMENT				1,000,000	914,000		
AIR TRAFFIC CONTROL AND LANDING SYSTEMS				21,600,000	0		
NATIONAL AIRSPACE SYSTEM				9,100,000	9,974,000		
THEATER AIR CONTROL SYS IMPROVEMENT				1,900,000	1,563,000		
WEATHER OBSERVE/FORECAST				600,000	35,000		
AF GLOBAL COMMAND & CONTROL SYSTEM				600,000	575,000		

FY 2003 Planned vs Actual Procurements and Transfers

Nomenclature	Equip No.	FY 2003 Transfers (# of items)		FY 2003 Procurements (\$s)		FY 2003 NGREA (\$s)	
		Plan	Actual	Plan	Actual	Plan	Actual
COMBAT TRAINING RANGES				2,600,000	2,553,000		
BASE LEVEL DATA AUTO PROGRAM				1,100,000	1,080,000		
THEATER BATTLE MGT C2 SYS				500,000	1,500,000		
DEFENSE MESSAGE SYSTEM				1,100,000	1,125,000		
TACTICAL C-E EQUIPMENT				20,000,000	20,000,000		
BASE COMM INFRASTRUCTURE				24,700,000	16,650,000		
BASE/ALC CALIBRATION PACKAGE				700,000	700,000		
NIGHT VISION GOGGLES				500,000	540,000		
MECHANIZED MATERIAL HANDLING EQUIP				800,000	780,000		
FLOODLIGHTS				2,000,000	0		
PHOTOGRAPHIC EQUIPMENT				400,000	360,000		
AIR CONDITIONERS				300,000	290,000		
ITEMS LESS THAN \$5,000,000				28,900,000	25,098,000		
PRECISION STRIKE						12,000,000	12,000,000
ENHANCED SURVIVABILITY						8,000,000	8,000,000
DATA LINK COMBAT ID						6,000,000	6,000,000
24-HOUR OPERATIONS						3,831,700	3,831,700
TOTAL				\$361,800,000	\$313,860,000	\$29,831,700	\$29,831,700

Major Item of Equipment Substitution List

NOTE: This table identifies equipment authorized by the Service to be used as a substitute for a primary item of equipment. The table also identifies whether or not the item is able to be deployed in wartime. This data meets the Title 10 requirement to identify equipment that is not the most desired item of equipment.

Required Item Nomenclature	Reqd Item Equip No.	Substitute Item Nomenclature	Substitute Item Equip No.	FY 2007 Qty	Deployable?	
					Yes	No
<p>Service Does Not Use Substitution To Satisfy Major Item Equipment Requirements</p>						

Significant Major Item Shortages

NOTE: This table provides an RC top ten prioritized (PR) shortage list for major items of equipment required for wartime missions but which are currently not funded in the FYDP. It lists the total quantity required, the total unfunded requirement, the individual item cost, and the cost of the unfunded portion. This data is consistent with other unfunded data submitted by the Service.

PR	Nomenclature	Total Req'd	# Items Short	Item Cost	Total Shortage Cost	Rationale/Justification
1	F-16/A-10 Targeting Pods	232	30	1,300,000	39,000,000	Provides precision targeting capability with an external pod.
2	F-15 AESA	126	126	7,719,000	972,594,000	AESA radar replaces the traditional mechanically scanning radar dish with a stationary panel covered by an array of small transmitter-receiver modules.
3	C-130 AN/APN 241	126	24	943,000	22,632,000	AN/APN-241 low power, color radar provides enhanced capability for all-weather, precision airdrop and detection of wind shear.
4	F-16 APG-68 (V)10	339	339	1,325,590	449,375,000	The APG -68 (V)10 radar will significantly increase pilots' survivability and lethality in every mission area to include all weather, air-to-ground targeting.
5	PJ Parachutes	200	200	16,000	3,200,000	The SOV-3HH parachute and tandem tether parachute will increase the safety of pararescue forces, as well as enhance their high altitude capability.
6	CRC Body Armor	1,560	1,560	389	121,400	Control and Reporting Center personnel need body armor for personal protection during deployment to hostile environments.
7	Tactical Data Links	267	267	150,000	40,050,000	ANG aircraft and C2 systems need tactical data links to connect to the tactical nets of ground forces, improve target identification, reduce fratricide and ensure situation awareness.
8	Helmet-Mounted Cueing Systems (HMCS)	459	459	453,366	208,095,000	The F-15/A-10//F-16 need a HMCS to vastly improve employment of air-to-air and air-to-ground weapons by fusing sensors, displays and employment cues directly to the pilot.
9	HC/C-130 LAIRCM	150	150	4,280,000	642,000,000	Allows combat delivery aircraft to survive in an environment of increasing threat complexity and lethality.
10	Engines - Total	646	494	Various	2,375,620,000	JSTARS, F-15, A-10, F-16 need engine upgrades or replacements to reduce the cost of sustaining legacy engines, boost performance and thrust, and improve the operational capabilities of the platform.

III. Air Force Reserve (AFR) Overview

A. Current AFR Status

1. General Overview

a. Mission

AFR supports the Air Force (AF) mission to defend the United States through control and exploitation of air and space by providing global reach and global power. Even though the AFR has been operationally engaged for years, it has become increasingly involved since September 11, 2001. The Air Force Reserve Command (AFRC) is the management headquarters for all AFR resources.

AFR has 30 flying wings equipped with their own aircraft and seven associate units that share aircraft with Active Component (AC) units. Three space operations squadrons share satellite control missions with AC units; one squadron shares the missile early warning mission; two squadrons are integrated into Air Operations Center (AOC) operations; one squadron provides Warfare Center test and aggressor forces; and one squadron provides the only AF presence in the weather satellite control mission. Additionally, there are more than 620 mission support units in AFR, equipped and trained to provide a wide range of services, including medical and aeromedical evacuation, aerial support, civil engineering, security forces, intelligence, communications, mobility support, logistics and transportation operations. AFR has over 400 assigned aircraft comprised of the F-16C/D, A/OA-10, C-5A/B, C-17A, C-141, C/MC/WC/HC-130E/H/J/N/P, KC-135R/T, B-52H and HH-60G. These units, aircraft, crews and support personnel stand ready for assignment to the Air Combat Command (ACC), Air Education and Training Command (AETC), Air Mobility Command (AMC), Air Force Space Command (AFSPC), National Reconnaissance Office (NRO), Air Force Special Operations Command (AFSOC), as well as combatant commands upon mobilization.

2. Status of Equipment

a. Equipment On-hand

i. Fighter Aircraft

a) F-16 “Fighting Falcon”

The F-16 is a highly maneuverable fighter designed to provide multi-role capability for today’s complex battlefield environment. This aircraft is primarily used for missions in offensive counter-air (air-to-air and air-to-ground), air interdiction, suppression of enemy air defense, close air support, and air strike control. AFR has 72 F-16C/D aircraft consisting of block 25, 30, and 32 airframes assigned to Joint Reserve Base, Ft Worth, TX; Hill AFB, UT; Homestead ARS, FL; and Luke AFB, AZ. These aircraft represent five percent of the overall Air Force F-16 inventory. Recent



modifications include precision guided munitions capability, Situation Awareness Data Link (SADL), electronic warfare receiver antenna relocation, and precision weapons compatible pylon upgrade. In addition, these aircraft are equipped with a fully night-vision-compatible lighting system to include internal and external lighting and covert flares. The major modification identified by the Air Force for the F-16 fleet is to update the newest F-16s with a color display and processor, add the software capability to employ Aim 9X off-bore sight IR missiles, and improve pilot software interface and display avionics to better support all missions. The software and display additions will overcome the current limitations in displaying real time mission information imposed by monochromatic displays in the cockpit, while the addition of Aim 9X increases mission capability.

b) A/OA-10 “Thunderbolt II”



The A-10 aircraft is primarily used in close air support and forward air control (FAC) missions. The OA-10 is the FAC version of the A-10. There are 51 A/OA-10 aircraft assigned to AFR, located at Whiteman AFB, MO; Barksdale AFB, LA; and Naval Air Station Joint Reserve Base, New Orleans, LA. During FY 2006, the A/OA-10 will be modified with an EPLRS/SADL radio that will provide digital connectivity with air and ground friendly forces. In addition, a smart multi-function color display (SMFCD) will be installed that provides

increased targeting pod capability and a moving map. As a follow-on to this modification, precision engagement (PE) is being funded by ACC on all A/OA-10 aircraft. This modification will incorporate tactical data link, targeting pods, and smart weapons capability. The current installation plan incorporates this upgrade on AFR aircraft in FY 2009. A shortfall of the A/OA-10 is thrust deficiency. This aircraft, originally designed for low altitude employment, is now tasked according to theater commanders' requirements for operations at medium altitudes. With the current engines, medium altitude operations result in reduced weapons payloads and reduced fuel loads. A study/demonstration to increase engine performance for the A-10 is funded in FY 2006.

ii. Bomber Aircraft

a) B-52H “Stratofortress”

The B-52H mission is to perform strategic attack, air interdiction, offensive counter air, air-to-surface, suppression of enemy air defenses, mine-laying and joint maritime operations. Nine B-52H aircraft are assigned to AFR at Barksdale AFB, Louisiana. This unit is tasked to employ unguided gravity conventional munitions, Conventional Air Launched Cruise Missiles, the precision Global Positioning Systems (GPS)—guided Joint Direct Attack Munition (JDAM) and the Wind Corrected Munitions Dispenser (WCMD). A recent AFR-developed transformational modification is self-designation of targets through the integration of Litening AT targeting pods, which eliminates the current need for support aircraft



to accomplish this role. Additional enhancements to the AFR B-52 fleet currently under consideration are: (1) Visual clearance of the target area in support of other conventional munitions employment; (2) Target coordinate updates to JDAM and WCMD to improve accuracy; (3) Electronic Attack (both standoff and penetration missions); and (4) Bomb Damage Assessment of targets.

iii. Airlift Aircraft

a) C-141C "Starlifter," Inter-Theater Airlift

The C-141C is used for long-range inter-theater airlift. AFR has eight C-141C aircraft assigned to Wright- Patterson AFB, OH. The AF plans to retire the fleet in FY 2006.



b) C-5 "Galaxy," Inter-Theater Airlift



The C-5A is a long range, heavy-lift aircraft. The AFR will have 41 aircraft assigned to Westover Air Reserve Base (ARB), MA, and Lackland AFB, TX by the end of FY 2006. By FY 2008 AFR will have 10 C-5As and 1 C-5B stationed at Wright-Patterson AFB, Ohio, following an equipment transfer from Air Mobility Command. The steady decrease in reliability and increase in annual maintenance costs of the C-5A are a significant concern. Two major modification programs, the C-5

Avionics Modernization Program (AMP) and the Reliability Enhancement and Re-engining Program (RERP), are underway for the C-5 fleet. The RERP depends upon successful completion of AMP. The RERP will reduce the need for engine removals, decrease noise and emissions, and increase the fleet's climb and payload capability. Future consideration will be given to the C-5 Malfunction Detection, Analysis, and Recording System (MADARS) and C-5 Emergency DC Power Generator Upgrades. The MADARS upgrade replaces obsolete and unsupportable MADARS II components, while the DC power upgrade resolves a 15 amp power shortfall that will potentially grow to 25 amps under the C-5 AMP modification. C-5 FTU will transfer from Altus AFB to Lackland AFB in FY 2007. All C-5 initial/upgrade training will be conducted by AFR.

c) C-130 "Hercules," Intra-Theater Airlift

Currently, the AFR has 95 C-130 Combat Delivery aircraft, including the E, H, and J models assigned to 11 different Reserve squadrons. The C-130 aircraft is used to support the intra-theater airlift mission. Its speed, range, load-carrying characteristics and capability to operate under difficult terrain conditions make it an invaluable and versatile aircraft able to land and deliver its cargo on unimproved landing strips. Other missions involve aero medical evacuation and special air



support operations. Additionally, Reserve C-130H aircraft support two civil missions: fire fighting and aerial spraying. Long-term modernization includes the Avionics Modernization Program (AMP) to the “H” models. This effort will convert the entire C-130H fleet to a standard configuration called the C-130 AMP. Major AMP changes include a glass cockpit (avionics modernization), updated Global Air Traffic Management (GATM) systems, APN-241 Radar (for those aircraft not already so equipped) and NVG lighting throughout the aircraft.

d) C-17A “Globemaster III,” Inter and Intra-Theater Airlift

The C-17A is a wide-body heavy-lift aircraft capable of operations over inter-continental ranges as well as operations into austere tactical airfields. AFR will receive a total of 8 C-17 aircraft at March ARB by February 2006. Long-term modernization initiatives include the integration of advanced aircraft defensive systems, continuing updates to Global Air Traffic Management (GATM) systems, and improved instrument station keeping equipment.

iv. Special Mission Aircraft

a) WC-130 “Hurricane Hunter”

There are 10 WC-130H and 10 WC-130J (Hurricane Hunter) aircraft assigned to the 53rd Weather Reconnaissance Squadron (WRS) at Keesler AFB, MS. These aircraft are specially modified to penetrate hurricanes and typhoons while collecting and transmitting data to special ground stations. The aircraft carries meteorologists and other weather specialists who track and forecast the movement of these severe storms. The 53 WRS is scheduled to replace all of the “H” models with “J” models once the WC-130J is weather certified.



b) MC-130E “Combat Talon I”



AFR owns 14 MC-130E Combat Talon I aircraft assigned to the 919 Special Operations Wing at Duke Field, FL. This is AFR’s only “active-associate” unit, where AC aircrews fly Combat Talon I missions on the AFR aircraft. The MC-130E is equipped for night and adverse weather, low-level, and deep-penetration tactical missions. Additionally, these aircraft conduct aerial refueling of special operations helicopters.

c) HC-130 Hercules "King"

AFR has 5 HC-130N/P aircraft located at Patrick AFB, FL. The HC-130N/P is configured to support the Combat Search and Rescue (CSAR) mission in conjunction with providing air refueling to CSAR helicopters. Because of its versatility, the HC-130P/N is also tasked to perform military operations other than war. These tasks include civil search and rescue, emergency aereo medical evacuation, disaster relief, international aid, counterdrug activities and NASA space shuttle support.



d) HH-60G "Pave Hawk"



AFR has a total of 15 HH-60G helicopters located at Davis Monthan AFB, AZ and Patrick AFB, FL. The primary mission of the HH-60G Pave Hawk helicopter is to conduct day or night operations into hostile environments to recover downed aircrew or other isolated personnel during war. Because of its versatility, the HH-60G is also tasked to perform military operations other

than war. These tasks include civil search and rescue, emergency aereo medical evacuation, disaster relief, international aid, counterdrug activities and NASA space shuttle support.

v. Aerial Refueling Aircraft

a) KC-135 "Stratotanker"

The Stratotanker is the military version of the Boeing 707 transport. The KC-135R/T aircraft carry approximately 200,000 pounds maximum transfer fuel load. While the KC-135 is primarily tasked with aerial refueling, it is also used to airlift cargo and personnel. The KC-135 has an approximate range of 1,500 miles with 150,000 pounds of transfer fuel. AFR has 72 KC-135R/T aircraft assigned to Andrews AFB, MD; Beale AFB, CA; Grissom ARB, IN; March ARB, CA; Portland IAP, OR; Selfridge Air National Guard Base (ANGB), MI; Seymour-Johnson AFB, NC; and Tinker AFB, OK.



Reserve squadrons equipped with KC-135 aircraft provide about 13 percent of the AF's KC-135 aerial refueling capability.

vi. Trainers

a) C-130 H2 & H3 Weapon Systems Trainers (WST)

The WSTs simulate all cockpit instruments, including ground-mapping radar and air defensive systems, and are capable of Night Vision Goggle (NVG) training. The WSTs support tactical, low level, airdrop training for C-130 pilots, copilots, flight engineers, and navigators. Each WST is also accompanied by a stand-alone navigation trainer to provide C-130 navigators with quality training in over-water flight procedures and airborne radar approaches. AFR expected full Operational Capability (FOC) for the Formal Training Unit (FTU) in FY 2003. The first FTU class started in August 2001. With one H2 WST to accommodate the existing continuation training and additional FTU student loads, FOC for training these students cannot be achieved without additional devices in the H2 configuration. In FY 2003 AFR funded an effort to convert the H3 Unit Level Trainer to an H2 Flight Training Device (FTD) configuration to support the FTU when delivered in FY 2005. Additionally, a fuselage trainer currently available at Dobbins ARB, GA, supports training for the Loadmaster position. This trainer will require a long term bed-down conducive to FTU training.



b) C-130J Maintenance and Aircrew Training System (MATS)

The C-130J MATS program is supported by an AFR initiative to build the first WST. This C-130J WST is equipped with a state-of-the-art hydraulic motion base and a large, wrap-around, out-the-window visual system. The WSTs simulate all cockpit instruments, including ground-mapping radar and air defensive systems, and are capable of NVG training. The WSTs support tactical, low-level, airdrop training for C-130 pilots, copilots, flight engineers and loadmasters. The WST is located at Keesler AFB, MS. This AFR WST serves AC crews of the C-130J and RC crews of the C-130J and WC-130J.

c) C-5 Weapon Systems Trainer (WST)

AFR has a C-5 simulator at Westover ARB, MA. This simulator has a unique visual capability to train both air refueling and conventional air-land mission procedures. Another AFR C-5 WST is located at the 433rd Airlift Wing (AW) at Lackland AFB, TX. This WST has state-of-the-art hydraulic-motion base and a large wrap-around out-the-window visual system, which complies with FAA level C+ Standards. It supports training of the Pilot, Copilot, and Flight Engineer positions for mission qualification, upgrade, and continuation training. Maintenance Engine Run training capability provided by this WST also supports maintenance personnel training.

d) C-141 Total Training System (TTS)

TTS will be withdrawn as part of the programmed drawdown of the C-141 fleet ending in early 2006.

e) A-10 Full Mission Trainer (FMT)

AFR has two A-10 FMTs at Whiteman AFB, MO and NAS New Orleans JRB, LA, and two older A-10 FMTs at Barksdale AFB, LA. The A-10 FMT provides the highest fidelity simulator training for the A-10 flight community. These trainers are critical to supporting mission training capabilities, and normal, emergency, instrument, weapons, and tactics procedures. Planned upgrades include a PC-based image generator with a wrap-around visual display system and upgrades to the visual database using real world photographic imagery. To continue to train crews effectively, concurrency modification to the training devices must be funded to ensure configurations between the aircraft and the training devices are identical. AFR's A-10 FMTs currently operate in a networked/Distributed Mission Operations (DMO)-like training environment.

f) F-16 Multi-Task Trainer (MTT)

AFR has four F-16 MTTs located at Hill AFB, UT; Homestead AFB, FL; Ft. Worth ARB, TX; and Luke AFB, AZ. These MTTs provide important systems training to F-16 Block 25/30/32-qualified AFR, ANG, and ACC pilots. Furthermore, these trainers are critical in supporting mission training capabilities, and normal, emergency, instrument, weapons, and tactics procedures. AFR also plans to upgrade these devices to full tactical mission capability over the next several years. To continue to train crews effectively in the procedures listed above, concurrency modification to the training devices must be funded to ensure configurations between the aircraft and the training devices are maintained. While the F-16 MTTs do not currently operate in a networked/DMO-like training environment, the design supports networked/DMO-like training capability. MTTs do not currently have the required fidelity to operate with other higher fidelity network capable devices. At a minimum, visual systems upgrades will be required to upgrade these devices to DMO minimum fidelity standards.

b. Average Age of Current Equipment

See *Table 2* for the average age of selected major items of equipment.

c. Compatibility of Current Equipment with AC

AFR equipment is compatible to support all applicable AF missions. The only equipment that might be considered a substitution is the 10 WC-130H aircraft at Keesler AFB, MS. The unit was programmed to have all 10 WC-130J models delivered by the end of FY 2001, however, MIL SPEC delivery from the manufacturer has been delayed. The WC-130J aircraft are fully assembled but are awaiting equipment modifications to meet acceptance specifications. The unit will continue to operate the older WC-130H until that time.

With the help of specific Congressional funding, AFR has been able to keep the AFR equipment mission compatible. Some of the completed upgrades include:

- 1 C-130J aircraft procurement
- F-16 Digital Video Recorders(DVRs)
- C-130H3 Simulator conversion (ULT)

- F-16 Targeting Pod Upgrades/Procurement
- F-16 ALR-69 Antenna Modification Kits
- F-16 PIDS Universal Upgrade Modification
- 10 WC-130J Aircraft
- Digital Dewpoint Hygrometer
- B-52 Targeting Pod Procurement
- HH-60G 200 Gallon Fuel Tank
- C-5 Airlift Defensive System (First 3 aircraft)
- F-16 Data link upgrade
- F-16 Pylon Integrated Dispensing System upgrade

The next essential modification efforts for AFR will be:

- C-130/HC-130 Large Aircraft Infrared Countermeasures (LAIRCM)
- C-17A LAIRCM
- C-130H2 APN 241 Radar
- A-10 Targeting Pod Procurement
- C-5 Airlift Defensive System
- HH-60 Data Link/Multifunction Displays
- C-130H High Pressure Spray System

d. Maintenance Issues

i. C/WC-130J Funding & Sustainment

Interim Contractor Support (ICS) for hardware and software is not fully funded. There are low levels of spares on aircraft parts used for ICS. Also, funding is required for Field Service Representative until testing of C/WC-130J is complete. Additional manpower requirements are needed to support two operational missions for both the flight line and backshop support. The 403rd AW currently has only one Maintenance squadron to support two flying squadrons. Intermediate Maintenance funding for C/WC-130J propellers is also needed. Mission Impact: Mission Capable rates are negatively impacted, thereby reducing aircraft availability.

ii. A-10 Wing Station 23 Inspection

Thus far, a 20 percent failure rate has been noted (an inspection failure requires wing change). Mission Impact: Mission Capable rates negatively impacted; aircraft availability is reduced.

iii. C-141 Sustainment During Drawdown

Remaining C-141 fleet is being phased out. During this period, enroute (aircraft deployed off station) maintenance and recovery support are key concerns.

iv. Maintenance Support Information Technology Modernization

Recent Air Force requirements have been levied upon all Major Commands requiring implementation of new maintenance support information technologies sooner than current POM funding satisfies. New information technologies include: Electronic Maintenance Operation Center (EMOC), Tool Accountability System (TAS) and Wireless RF LAN infrastructure (Note: the deployment of Digital Technical Orders accelerates the need for funding of laptops on the flight line. Air Force electronic technical order distribution/management system is also a concern. JCALS and ETIMS are both good ideas, however, funding to obtain these new technologies has been a continuous issue. The impact could be significant with respect to aircraft maintenance since newer weapons systems are coming with electronic technical orders. With an increasing dependence on technology, we need to make a commitment to a single solution. AFR cannot afford otherwise if it is to remain compatible with the AC).

e. Modernization Programs and Shortfalls

Congress initiated NGREA funding in December 1981 to address RC readiness issues. Public laws and legislative language established that this equipment appropriation was intended to overcome shortfalls in the readiness, combat capability, and modernization issues of Reserve forces. The following are shortfalls categorized by major weapon systems.

i. Fighter Aircraft

a) F-16

One of the main limitations of AFR F-16 aircraft is the need for new display processors to fully maximize the pilots' situational awareness. AFR is upgrading the display processor with Commercial-Off-the-Shelf (COTS) technology with FY 2004 NGREA funds. AFR F-16s have been modified to improve the threat warning accuracy with a modification to the antenna location for the ALR-69 radar-warning receiver system; this will accommodate a future anticipated ALR 69A/AT3 upgrade. Additionally, AFR is exploring the added capability of the APG-68 v10 radar to satisfy it's all weather targeting requirements. Also, in collaboration with the ANG, AFR is investigating the integration of the helmet mounted cueing system for it's block 30 aircraft.

b) A-10 and OA-10

In conjunction with ANG, AFR conducted an Operational Utility Evaluation (OUE) to determine feasibility of incorporating precision attack capability on the weapon system. Results of that study led to the installation of a temporary modification that allows for use of the LITENING Targeting Pod, thus providing precision attack capability until the permanent Precision Engagement modification is fielded on our aircraft. AFR also modified our aircraft to

connect the electronic warfare suite to the aircraft 1553 avionics bus, thus allowing semi-automatic operation of defensive measures.

ii. Bomber Aircraft—B-52H

A major modification requirement is to provide a data link or situational awareness system to support the extended B-52H mission timeline. The battlefield can be expected to change significantly during a lengthy (8-10 hours or more) B-52H mission. A system is needed to provide the crew with a moving map display that includes enemy surface and air threats in addition to friendly aircraft locations. The display system would also be used to provide the aircrew with target set updates during flight. Another necessary modification is the integration of targeting pods to provide precision strike and battle damage assessment capabilities.

iii. Airlift/Special Missions Aircraft

a) C-141

The C-141 is scheduled to retire in FY 2006. Follow-on replacement missions include the C-5A/B, C-17A, and KC-135R/T.

b) HH-60G and HC-130 - Combat Search and Rescue (CSAR)

CSAR is a requirement for most military contingency operations. For example, the 920th Rescue Wing (RQW) Pave Hawk helicopters and HC-130 Hercules aircraft are in constant demand. The wing's crews are trained for day or night operations and low-level and over-water missions. They require night vision devices to enhance their rescue operations. In addition to its combat missions in Operation IRAQI FREEDOM, the 920th RQW routinely supports civilian search and rescue requirements in the coastal waters of the U.S. beyond the range of the United States Coast Guard. It also provides support to: Aerospace Expeditionary Force (AEF) requirements; NASA Space Shuttle mission rescue support; launch support at Cape Canaveral, FL; and drug enforcement agencies in counter-drug operations.

Lead command responsibility for modernization of the Combat Search and Rescue Total Force capabilities transferred from ACC to AFSOC in the first quarter of FY 2004. The rescue airframes AFSOC acquired in this transfer are not considered SOF unique assets, and therefore do not fall under USSOCOM's Major Program Force (MPF) 11. As a result, modifications to the Rescue force will have to be made by lead command AFSOC with MPF 4 money. Although an initiative has begun to seek a replacement for the HH-60 helicopter, no plans exist to fund a replacement for the aging HC-130 Tanker aircraft. Most of these airframes are approaching 40 years of service. AFR was able to use NGREA funds to modernize some of the combat rescue assets and maintain the capability to support the AF in numerous contingency operations as well as AEF rotations. A major modernization requirement for the HC-130 fleet is the addition of the Large Aircraft Infrared Countermeasures (LAIRCM) systems for protection against the increasing IR missile threat worldwide. CARRA and ETCAS are required safety upgrades to enhance aircraft survivability in all missions worldwide.

c) C-130

Necessary upgrades include the continued modernization of the C-130H with Night Vision Compatible Aircraft Lighting Systems, APN-241 navigation ground map radar, Large Aircraft Infrared Counter Measures (LAIRCM) and High Pressure Spray system to improve aircrew survivability and weapon system reliability.

f. Overall Equipment Readiness

Presently, AFR weapons systems maintain equipment readiness on par with the AC except where limited by modernization restrictions. Readiness is achieved with constant close coordination with the lead commands to assure inclusion of AFR assets and mission capabilities in current requirements and funding.

B. Changes Since Last NGRER

A significant change in the AFR mission areas has been the reduction of AFR CSAR assets as a result of the programmed transfer of five HC-130s and eight HH-60Gs to the Active Air Force (completed during FY 2004). The CSAR mission was replaced with an air-refueling wing consisting of 8 KC-135s. This is seen in *Table 1* and *Table 5*. At the time of publication of this report there were several changes in near-term acquisition plans for the AF that will include changes for AFR equipment types and quantities. This includes the possibility of a Commercial-off-the-shelf (COTS) tanker aircraft, which might result in cascading of KC-135R aircraft. These changes have not yet been approved, and therefore have not been included.

C. Future Years Program (FY 2007–FY 2009)

1. FY 2007 Equipment Requirements

The following are unfunded, priority, major equipment requirements that were validated by the AFR Requirements Review Board. AFR continues to pursue AF and OSD support to provide funding necessary to meet these equipment needs.

Priority	Requirements Modernization List	Program Description
1	C-130 Large Aircraft Infrared Countermeasures (LAIRCM)	Procures and installs LAIRCM Group A on 15 C-130H3s and 54 C-130H2s; Group B on 8 H3s and 27 H2s. Includes spares and support equipment. Completes AFR C-130 H2/H3 fleet.
2	HC-130 Large Aircraft Infrared Countermeasures (LAIRCM)	Procures and installs (1) Group A wiring and (3) Group B sets on AFR HC-130P/N aircraft. Includes spares and support equipment. Completes AFR HC-130 fleet.
3	A-10 LITENING AT Pod Procurement	Procures 30 LITENING AT Targeting pods to support air operations of the A-10, B-52, and F-16 aircraft. Includes Interim Contract Support (ICS) and spares.
4	C-130 APN-241 Radars	Procures and installs 40 radar units (\$820k each) plus 4 spares and sustaining CLS, at \$9K per radar, completes AFR C-130 fleet.
5	A-10 Tactical Data Link/SADL	Procures and installs 51 Group A wiring kits and 23 additional SADL radios for all AFR A-10 aircraft. Cost includes funds required to install the pre-requisite Multi-Function Color Display (MFCD) modification.
6	HH-60G Tactical Data Link	Procures and installs 15 data link (SADL) radios for AFR CAF/SOF aircraft.

Priority	Requirements Modernization List	Program Description
7	C-5A Airlift Defensive Systems	Procures and installs ADS systems from retiring C-141C jets onto 32 AFR C-5As remaining in inventory. Currently no defense against IR threat in C-5A aircraft.
8	MC/HC-130 Crashworthy Loadmaster Seat	Retro fits 19 MC/HC-130s AFR aircraft with crashworthy loadmaster seats used during tactical ops such as refueling and Infil/Exfil missions.
9	HH-60G Q-22 FLIR Replacement	Procures and Installs Q-29 FLIR capability on 15 AFR HH-60G aircraft. Brings the system to fleet standards.
10	C-130H2 Weapon System Trainer (WST)	Procures C-130H2 WST. Allows Dobbins FTU to support annual training production required by FTU and continuation/refresher training. Facilities already exist.
11	F-16 Helmet Mounted Cueing System (HMCS) (FY 2008)	Procures and installs equipment for all AFR F-16 aircraft.
12	Next Generation Night Vision Devices (FY 2007)	Procures (330 sets/55 sets per annum). Will provide enough PNVGs to allow AFR's Spec Ops, CAF and theater airlift units to equip, train and develop tactics to harness this increased capability.
13	F-16 Digital Video Recorder (FY 2007)	Provides wiring and sensors that will take advantage of additional recording capabilities of the newly installed DVR's.
14	HC-130 Weapon System Trainer (WST)	Procures HC-130 WST for AFR use with HH-60G simulator to create a CSAR/PR centric simulator facility.
15	HH-60G Weapon System Trainer	Procures HH-60G Weapon System Trainer. Current ratio to aircraft sims is 44:1; AFSOC requires 10:1 (9 devices). System will require facility and CLS.
16	Pararescue Virtual Training Device (FY 2008)	Procures a simulation system to immerse pararescue personnel in a realistic tactical environment for operational rehearsal. System would require facility and CLS.
17	SF Night Vision and Sighting Modernization	Funds modernization and spares of AFR SF night vision and sighting devices to ensure forces are properly equipped for modern night operations
18	Squad Engagement Training System (SETS)	Funds modernization of 9 systems and sustainment of small arms weapons training systems (CATS and SETS) at 39 AFR locations.
19	Remote Smokey SAMS for AFR Ranges	Purchases remote smokey SAMS capability for two ranges. Enhances ability to train aircrews on surface-to-air threat recognition and countermeasures employment.
20	Reserve Command Vehicle Replacement	Vehicle types are critical assets supporting air and sustainment operations. Allows AFR to meet APPG requirements, vehicle shortages/replacement, UTC's, alternative fuel, and New Missions/Unit standups.
21	C-130 High Pressure Spray System	EPA regulations are changing, forcing AFR spray missions to change distribution system. Need high pressure/low volume envelopes used in industry.
22	MC-130 Radar Altimeter/Low Level Let Down	Replaces/upgrades existing HG9050 radar altimeters currently installed in AFR MC-130E aircraft to expand radar altimeter coverage from 5,000 ft to 15,000 ft. Reduces aircrew and equipment mission risk.
23	HC-130 Paratroop Door Square Window Modification	Procures engineering and 5 kits for installation of a large, square scanning window on AFR HC-130 aircraft.
24	F-16 MTT SCU 6 HW	Upgrades F-16 flight simulator assets to fidelity required for interoperability with other ACC/ANG/USAF DMT/DMO devices.
25	C-5A Avionics Modernization Program (AMP)	AMP for 32 AFR C-5A aircraft, 8 kits per year (\$4.1M per kit) and support equipment at \$780K per set
26	C-130H Paratroop Door Square Window Modification	Procures engineering and 24 kits for installation of a large, square scanning window on AFR C-130 aircraft.
27	Reserve Command Support Equipment	Procurement of equipment to address current shortfalls and provide equip. sustainment on a 15-year life cycle; attempt to clear in 4 years average life cycle; 6.7% per year.

2. Funded New Equipment Procurements

AFR received approximately \$40 million in NGREA funds for FY 2005. The following equipment procurement efforts were selected as the most critical to pursue within the total authorized amount:

- HC/C-130 Large Aircraft Infrared Countermeasures
- Litening Pod Upgrade Modification
- A-10 Litening AT Pod Procurement
- APN 241 Radar Replacement for C-130E/H
- Fighter Enhancement Program
- A-10 Data Link/Display
- C-5A Airlift Defensive Systems

3. Anticipated Transfers and Withdrawals from AC to RC

Over the FYDP, AFR anticipates the replacement of eight C-141C aircraft with C-5 aircraft.

4. Remaining Equipment Shortages and Modernization Shortfalls at the End of FY 2009

AFR can mobilize forces to support every contingency worldwide. There has been no impact on readiness attributable to these mobilizations. All of the Selective Reserve units are fully capable of meeting their required response time. This impressive capability has been proven, and represents the RC model of seamless integration into gaining Major Commands' operational employment. AFR forces are fully integrated into the Global Reach laydown. With the establishment of the 10 AEFs, all AFR combat support forces will be continually integrated with AC forces in meeting the overall operational employment requirements in contingencies in all theaters of operations.

AFR combat readiness and mobilization are regularly evaluated in accordance with the AF Inspection system. Operational Readiness Inspections (ORI) are accomplished by gaining Major Commands every four years. The inspection systems measure a unit's ability to mobilize and deploy, as well as its combat readiness. AFR units are measured against the same standards and criteria required of an AC unit.

D. Summary

AFR continues to advocate its modernization needs to the AC and Congress. Through the hard work and dedication of AFR men and women, Reserve personnel participate in real-time contingencies as a critical partner on the AF team. To ensure a sharp and ready edge, AFR plans, programs, and facilitates its equipment requirements within the AF process. AFR requirements are presented, analyzed, and advocated under the same process used by the AF. In addition, AFR utilizes its internal Requirements Review process to further prioritize, validate, and source below

the line and unfunded requirements. It engages in vigorous modernization efforts to provide the capability required to meet the war fighters' needs.

Since September 11, 2001 AFR has faced many new challenges. Foremost among these is the challenge of maintaining a steady state operations tempo. While this is possible in the short term, long term effects will include reduced manning, retention levels, and a decrease in mission capable rates for AFR aircraft. AFR continues to work hand in hand with the AC to surmount these challenges and remain a viable part of the Total Force.

AFR steadfastly upholds the core values of "Integrity First, Service Before Self, and Excellence In All We Do" as its operating standard.

Consolidated Major Item Inventory and Requirements

NOTE: This table provides a comprehensive list of selected major items of equipment. It provides the quantity on-hand (QTY O/H) projected to be in the inventory at the beginning/end of the selected fiscal year (FY). It also provides the quantity required (QTY REQ) needed to meet the full wartime requirements of the Reserve component. In accordance with Title 10, the QTY REQ number provides the recommendations as to the quantity and type of equipment which should be in the inventory of each Reserve component. Unit cost values are in dollars.

Nomenclature	Equip No.	FY 2007 Unit Cost	Begin FY 2007 QTY O/H	Begin FY 2008 QTY O/H	Begin FY 2009 QTY O/H	End FY 2009 QTY O/H	End FY 2009 QTY REQ
AIR REFUELING							
AIR REFUELING, KC-135R/T	KC-135R/T	\$47,700,000	72	72	72	72	72
AIR SUPPORT							
AIR SUPPORT, OA-10A	OA-010A	\$10,700,000	7	7	7	7	7
SPECIAL OPS, MC-130E	MC-130E	\$72,300,000	14	14	14	14	14
WEATHER, WC-130J	WC-130J	\$75,500,000	10	10	10	10	10
AIRLIFT							
AIRLIFT, C-130E	C-130E	\$12,400,000	8	8	8	8	8
AIRLIFT, C-130H	C-130H	\$29,200,000	73	72	71	71	71
AIRLIFT, C-130J	C-130J	\$54,000,000	6	7	8	8	8
AIRLIFT, C-141C	C-141C	\$47,180,000	8	0	0	0	0
AIRLIFT, C-17A	C-17A	\$219,200,000	8	8	8	8	8
AIRLIFT, C-5A	C-5A	\$119,300,000	29	27	24	24	24
AIRLIFT, C-5B	C-5B	\$156,800,000	6	13	14	14	14
BOMBERS							
BOMBERS, B-52H	B-52H	\$55,400,000	8	8	8	8	8
FIGHTERS							
FIGHTER, A-10A	A-010A	\$10,700,000	38	38	38	38	38
FIGHTER, F-16C	F-16C	\$19,500,000	53	53	53	53	53
FIGHTER, F-16D	F-16D	\$19,500,000	7	7	7	7	7
RESCUE							
RESCUE, HC-130N	HC-130N	\$19,100,000	1	1	1	1	1
RESCUE, HC-130P	HC-130P	\$19,100,000	4	4	4	4	4
RESCUE, HH-60G	HH-60G	\$17,600,000	13	13	13	13	13

AFR Average Age of Equipment

Table 2

NOTE: This table provides the average age of selected major items of equipment. The average age provides a projected average age of the fleet at the start of FY 2006.

Nomenclature	Equip No.	Average Age	Remarks
AIR REFUELING			
AIR REFUELING, KC-135E	KC-135E	46	Phase out of remaining A/C when Congress allows
AIR REFUELING, KC-135R	KC-135R	46	
AIR SUPPORT			
AIR SUPPORT, OA-10A	OA-010A	25	
SPECIAL OPS, MC-130E	MC-130E	41	
WEATHER, WC-130J	WC-130J	5	
AIRLIFT			
AIRLIFT, C-130E	C-130E	42	
AIRLIFT, C-130H	C-130H	16	
AIRLIFT, C-130J	C-130J	7	
AIRLIFT, C-141C	C-141C	39	
AIRLIFT, C-17A	C-17A	1	
AIRLIFT, C-5A	C-5A	35	
BOMBERS			
BOMBER, B-52H	B-52H	44	
FIGHTERS			
FIGHTER, A-10	A-10	26	
FIGHTER, F-16C	F-16C	18	
FIGHTER, F-16D	F-16D	20	
RESCUE			
RESCUE, HC-130N	HC-130N	37	
RESCUE, HC-130P	HC-130P	40	
RESCUE, HH-60G	HH-60G	17	

Service Procurement Program - Reserve (P-1R)

<p><i>NOTE: This table identifies the dollar value of equipment programmed to be procured with Service procurement funds as identified in the P-1R exhibit of the FY 2007 President's Budget Submission. All values are costs in dollars, and ammunition procurements have been excluded. Deliveries of procured equipment normally take one to two years before they arrive in the inventory; e.g., items procured in FY 2007 would be expected to arrive in RC inventories in FY 2008 or FY 2009.</i></p>				
Nomenclature	FY 2007	FY 2008	FY 2009	Remarks
MODIFICATION OF INSERVICE AIRCRAFT				
B-52	2,806,000	21,188,000	20,866,000	
A-10	12,461,000	11,955,000	3,673,000	
F-16	15,139,000	13,740,000	12,073,000	
C-5	54,947,000	127,826,000	173,629,000	
C-130	60,950,000	105,153,000	160,711,000	
C130J MODS	13,261,000	11,265,000	15,463,000	
C-135	11,529,000	9,936,000	10,483,000	
H-60	2,878,000	5,194,000	1,530,000	
AIRCRAFT SUPPORT EQUIPMENT AND FACILITIES				
COMMON SUPPORT EQUIPMENT	23,615,000	19,995,000	19,433,000	
VEHICULAR EQUIPMENT				
HMMWV, ARMORED	321,000	155,000	107,000	
HMWWV,UP-ARMORED	171,000	66,000	110,000	
RUNWAY SNOW REMOVAL AND CLEANING EQUIPMENT	2,450,000	1,861,000	2,549,000	
ITEMS LESS THAN \$5M (VEHICLES)	2,263,000	4,181,000	5,782,000	
ELECTRONICS AND TELECOMMUNICATIONS EQUIP				
NATIONAL AIRSPACE SYSTEM	14,139,000	313,000	316,000	
WEATHER OBSERVATION FORECAST	2,702,000	1,692,000	2,181,000	
AF GLOBAL COMMAND & CONTROL SYS	527,000	648,000	654,000	
COMBAT TRAINING RANGES	707,000	693,000	707,000	
THEATER BATTLE MGT C2 SYSTEM	613,000	3,413,000	1,706,000	
BASE INFO INFRASTRUCTURE	10,039,000	10,000,000	15,714,000	
NAVSTAR GPS SPACE	138,000	126,000	119,000	
CCTV/AUDIOVISUAL EQUIPMENT	497,000	496,000	497,000	
OTHER BASE MAINTENANCE AND SUPPORT EQUIP				
NIGHT VISION GOGGLES	1,157,000	566,000	575,000	
MECHANIZED MATERIAL HANDLING EQUIP	58,000	510,000	521,000	
ITEMS LESS THAN \$2M (BASE SUPPORT)	742,000	768,000	792,000	
TOTAL	\$234,110,000	\$351,740,000	\$450,191,000	

National Guard and Reserve Equipment Appropriation (NGREA) Procurements

NOTE: This table identifies the dollar value of equipment originally programmed to be procured with the National Guard and Reserve Equipment Appropriation (NGREA). These funds are available for a three-year period from the year of appropriation. Deliveries of procured equipment normally take one to two years from date of procurement before they arrive in the inventory; e.g., items procured in FY 2007 would be expected to arrive in RC inventories in FY 2008 or FY 2009. All values are costs in dollars.

Nomenclature	FY 2004	FY 2005	FY 2006	Remarks
F-16 LITENING POD UPGRADE MODIFICATION	12,625,170			
F-16 LITENING AT POD PROCUREMENT	15,950,826	6,100,000		
C-130E/H APN-241 RADAR REPLACEMENT	7,072,000	1,771,000		
F-16 DISPLAY PROCESSOR	6,400,000			
COMMAND POST CONSOLE UPGRADES	1,772,000			
DOBBINS TELEPHONE SWITCH UPGRADE	410,000			
ANTI-TERRORISM/FORCE PROTECTION EQUIPMENT	215,100			
SF NIGHT VISION & SIGHTING MODERNIZATION	221,004			
C-130 LARGE AIRCRAFT INFRA-RED COUNTERMEASURES (LAIRCM)		18,709,000		
CLASSIFIED PROGRAM		7,260,000		
ROVER UPGRADE TO LITENING AT POD		1,700,000		
HH-60G 200 GALLON AUXILIARY FUEL TANK		2,100,000		
MOTOR VEHICLES FOR MEDICAL UTCS		1,900,000		
A-10 MULTI-FUNCTION COLOR DISPLAY			3,210,000	
JOINT HELMET MOUNTED CUEING SYSTEM			1,300,000	
A-10 LITENING PODS			9,688,000	
C-130 APN-241 RADAR			4,750,000	
END TO END TESTER FOR AAR-47 MISSILE DETECTION SYSTEM			1,000,000	
B-52 MULTI-FUNCTION COLOR DISPLAY			1,500,000	
PARARESCUE JUMPER (PJ) NIGHT VISION GOGGLES			2,100,000	
HH-60 MULTI-FUNCTION COLOR DISPLAY			3,000,000	
C-130 YOKE MOUNTED CHAFFE/FLARE DISPENSER SWITCH			1,800,000	
NIGHT VISION DEVICES/LASER SIGHTS			330,000	
A-10/OA-10 SITUATIONAL AWARENESS DATA LINK (SADL) / ENHANCED POSITION LOCATION REPORTING SYSTEM (EPLRS)		4,275,000	919,000	
TOTAL	\$44,666,100	\$43,815,000	\$29,597,000	

Projected Equipment Transfer/Withdrawal Quantities

NOTE: This table portrays the planned equipment transfers (Active to Reserve), withdrawals (-), and decommissioning (-). Transferred equipment is commonly called "cascaded equipment," or equipment that is provided to the RC once the Active receives more modern equipment. Although this table highlights a three-year period, many Services will not know exact quantities of transfers or withdrawals until year of execution, due to the uncertainty of the procurement/delivery cycle of new equipment.

Nomenclature	Equip No.	FY 2007 Qty	FY 2008 Qty	FY 2009 Qty	Remarks
AIRLIFT, C-5A	C-5A	-5	-3		-9 to ANG/+1 from AMC
AIRLIFT, C-5B	C-5B	+9	+1		+10 from AMC

FY 2003 Planned vs Actual Procurements and Transfers

NOTE: This table compares what the Service planned to procure and transfer to the RC in FY 2003 with actual procurements and transfers. FY 2003 is selected as these are the most recent funds to expire. Since the procurement cycle is normally one to two years from funding to delivery, this table identifies only what has been delivered through the end of FY 2005. Procurement and NGREA columns reflect cost values in dollars.

Nomenclature	Equip No.	FY 2003 Transfers (# of items)		FY 2003 Procurements (\$s)		FY 2003 NGREA (\$s)	
		Plan	Actual	Plan	Actual	Plan	Actual
AIRLIFT, C-141B	C-141B	+5	0				
AIR REFUELING, KC-135R	KC-135R	+6	0				
COMBAT RESCUE, HC-130	HC-130	-2	-3				
RESCUE, HH-60G	HH-60G	-4	-4				
WEATHER SVC, WC-130J	WC-130J	+6	+4				
WEATHER SVC, WC-130H	WC-130H	-6	0				
A-10				2,200,000	2,700,000		
F-16				6,600,000	2,100,000		
C-5				33,400,000	23,000,000		
C-130				15,900,000	0		
C-135				12,800,000	14,400,000		
H-60				4,100,000	6,400,000		
OTHER AIRCRAFT				800,000	0		
AIRCRAFT SUPPORT EQ & FACILITIES				18,700,000	8,000,000		
BUSES				0	138,000		
AMBULANCES				100,000	90,000		
LAW ENFORCEMENT VEHICLE				200,000	177,000		
TRUCK, MAINTENANCE/UTILITY/DELIVERY				700,000	600,000		
TRACTOR, A/C TOW, MB-4				400,000	425,000		
TRACTOR, TOW, FLIGHTLINE				1,000,000	0		
TRUCK, HYDRANT FUEL				300,000	280,000		
TRUCK, F/L 10,000 LB				300,000	400,000		
HALVERSON LOADER				800,000	0		
NATIONAL AIRSPACE SYSTEM				7,300,000	828,000		
WEATHER OBSERVE/FORECAST				600,000	46,000		
AF GLOBAL COMMAND & CONTROL SYS				600,000	575,000		
COMBAT TRAINING RANGES				700,000	700,000		
THEATER BATTLE MGT C2 SYS				500,000	1,500,000		
BASE INFORMATION INFRASTRUCTURE				1,600,000	231,000		
DEFENSE MESSAGE SYSTEM (DMS)				300,000	315,000		
CCTV/AUDIOVISUAL EQUIPMENT				500,000	500,000		
NIGHT VISION GOGGLES				100,000	60,000		
FLOODLIGHTS				600,000	0		
PHOTOGRAPHIC EQUIPMENT				200,000	150,000		

FY 2003 Planned vs Actual Procurements and Transfers

Nomenclature	Equip No.	FY 2003 Transfers (# of items)		FY 2003 Procurements (\$s)		FY 2003 NGREA (\$s)	
		Plan	Actual	Plan	Actual	Plan	Actual
AIR CONDITIONERS				100,000	80,000		
ITEMS LESS THAN \$5,000,000				7,200,000	5,264,000		
WC-130 DIGITAL DEWPOINT HYGROMETER						650,000	1,654,500
HC-130 LIGHTWEIGHT AIRBORNE RETRIEVAL SYSTEM						400,000	400,000
F-16 SITUATIONAL AWARENESS DATA LINK UPGRADE						650,000	60,000
C-130H3 SIMULATOR CONVERSION (UNIT LEVEL TRAINER)						2,700,000	3,091,600
A-10 FUEL TANK FOAM INSTALLATION						180,000	305,000
F-16 SOLID STATE VIDEO TAPE RECORDER						4,000,000	2,075,000
C-130 SPRAY PAINT BOOTH						640,000	0
ANTI-TERRORISM/FORCE PROTECTION (AT/FP) EQUIPMENT						650,000	1,065,000
MISCELLANEOUS VEHICLES						73,900	0
HH-60G CRASHWORTHY FE/GUNNER SEAT TEST/TECH DATA						0	250,000
A-10 EW BUS CONNECTOR (FROM FY02)						0	398,900
F-16 MULTI-TASK TRAINER (MTT) VISUAL UPGRADE & SPARES						0	300,000
F-16 MULTI-TASK TRAINER (MTT) CASNET						0	200,000
TOTAL				\$118,600,000	\$68,959,000	\$9,943,900	\$9,800,000

Major Item of Equipment Substitution List

NOTE: This table identifies equipment authorized by the Service to be used as a substitute for a primary item of equipment. The table also identifies whether or not the item is able to be deployed in wartime. This data meets the Title 10 requirement to identify equipment that is not the most desired item of equipment.

Required Item Nomenclature	Reqd Item Equip No.	Substitute Item Nomenclature	Substitute Item Equip No.	FY 2007 Qty	Deployable?	
					Yes	No
<p>Service Does Not Use Substitution To Satisfy Major Item Equipment Requirements</p>						

Significant Major Item Shortages

NOTE: This table provides an RC top prioritized (PR) shortage list for major items of equipment required for wartime missions but which are currently not funded in the FYDP. It lists the total quantity required, the total unfunded requirement, the individual item cost, and the cost of the unfunded portion. This data is consistent with other unfunded data submitted by the Service.

PR	Nomenclature	Total Req'd	# Items Short	Item Cost	Total Shortage Cost	Rationale/Justification
1	ADS Tester, ALE-47 End to End Test Equipment	24	24	44,000	1,056,000	Current defensive systems tests do not effectively ground test the aircraft against current and future IR threats.
2	A-10 Multifunction Color Display ¹	51	16	122,000	2,000,000	Replace existing Adaptive Interface Modules (AIM) utilized for employment of LITENING AT Targeting Pods and display capability for SADL datalink.
3	C-5A Airlift Defensive Systems	32	29	1,200,000	34,800,000	Current defensive systems do not effectively protect the aircraft from current and future IR threats.
4	B-52 Multifunction Color Display	9	9	167,000	1,503,000	Provide the most cost effective solution to resolve a critical shortage with B-52 Targeting Pod controllers.
5	C-130 Large Aircraft Infrared Countermeasures (LAIRCM) ¹	105	34	3,250,000	112,000,000	Current defensive systems do not effectively protect the aircraft from current and future IR threats.
6	C-17 Large Aircraft Infrared Countermeasures (LAIRCM) ¹	8	8	8,450,000	67,580,000	Current defensive systems do not effectively protect the aircraft from current and future IR threats.
7	C/WC-130J Large Aircraft Infrared Countermeasures (LAIRCM) ¹	18	18	4,640,000	83,500,000	Current defensive systems do not effectively protect the aircraft from current and future IR threats.
8	C-5 Large Aircraft Infrared Countermeasures (LAIRCM) ¹	43	43	7,280,000	313,140,000	Current defensive systems do not effectively protect the aircraft from current and future IR threats.
9	HC-130 Large Aircraft Infrared Countermeasures (LAIRCM) ¹	5	3	5,000,000	15,000,000	Current defensive systems do not effectively protect the aircraft from current and future IR threats.
10	PJ Night Vision Goggles	142	142	15,000	2,100,000	Aligns AFRC Special Ops Forces equipment with Active Duty Special Ops Forces equipment.
11	A-10 Litening AT Pod Procurement	24	20	1,500,000	30,000,000	Required to support ongoing contingency operations and training.

1. Total shortage cost includes spares.

Chapter 6 United States Coast Guard Reserve

I. Coast Guard Overview

The Coast Guard is a branch of the armed forces of the United States at all times. It is a multi-mission maritime service within the Department of Homeland Security (DHS) that provides maritime safety and security by protecting the public, the environment, and U.S. economic and security interests in U.S. waters, foreign ports, and on the high seas. As the only military service outside the Department of Defense (DoD), the Coast Guard's broad law enforcement authorities make it a unique and extremely valuable instrument of national security.

A. Overall Coast Guard Planning Guidance

1. United States Code

There are myriad references in the United States Code, primarily in Titles 14, 33 and 10 that describe the Coast Guard and outline the Service's responsibilities and various authorities. The following references specifically address defense responsibilities:

- 10 U.S.C. 101. "...armed forces' means the Army, Navy, Air Force, Marine Corps, and Coast Guard."
- 14 U.S.C. 1. Establishment of Coast Guard. "...the Coast Guard ... shall be a military service and a branch of the armed forces of the United States at all times."
- 14 U.S.C. 2. Primary duties. "The Coast Guard ...shall maintain a state of readiness to function as a specialized service in the Navy in time of war."
- 14 U.S.C. 3. Relationship to Navy Department. "...Upon the declaration of war or when the President directs, the Coast Guard shall operate as a service in the Navy."
- 14 U.S.C. 145. Navy Department. "...The Secretary shall provide for such peacetime training and planning of reserve strength and facilities as is necessary to insure an organized, manned, and equipped Coast Guard when it is required for wartime operation in the Navy."

2. Defense and Transportation Memorandum of Agreement

The October 3, 1995 Memorandum of Agreement (MOA) between the Secretaries of Defense and Transportation for "Use of U.S. Coast Guard Capabilities and Resources in Support of the National Military Strategy" provides specific guidance for military planning and operations. This MOA remains in effect after the transfer to DHS. The primary objectives are to identify national defense capabilities of the Coast Guard and to improve Coast Guard responsiveness as a force provider. Annexes to this MOA address the following:

- Maritime Interception Operations to enforce the seaward portion of certain sanctions against other nations or group of nations. It may include stopping, boarding, searching, diverting, or redirecting vessel traffic.

- Marine Environmental Response Operations to facilitate planning, training and deployment of personnel in direct support of combatant commanders' environmental response requirements.
- Port Operations Security and Defense to ensure port and harbor areas are maintained free of hostile threats, terrorist actions and safety deficiencies which would be a threat to the deployment of military resources during contingencies, in both Seaports of Embarkation and Seaports of Debarkation.
- Peacetime Military Engagement to guide participation in combatant commanders' engagement strategies.
- Coastal Sea Control Operations to provide for deployment of Coast Guard personnel and platforms in support of combatant commanders' requirements.

3. National Fleet Policy Statement

The July 9, 2002 National Fleet Policy Statement by the Chief of Naval Operations and the Commandant of the Coast Guard synchronizes research and development, planning, fiscal stewardship, procurement, development of doctrine, training, and operations. To implement National Fleet, the Coast Guard and Navy work together to plan, acquire and maintain forces that mutually support and complement each Service's roles and missions. While charged with different aspects of the national security, the Coast Guard and Navy cooperate and integrate capabilities to ensure the highest level of maritime capabilities and readiness during surge or high-tempo operations. National Fleet is:

- comprised of ships, boats, aircraft and shore command and control nodes that are affordable, adaptable, interoperable, and possess complementary capabilities;
- designed, wherever possible, around common equipment and systems, and include coordinated operational planning, training and logistics; and
- capable of supporting the broad spectrum of national security requirements, from power projection to security and defense of the homeland.

4. Integration of the Coast Guard Reserve

The Coast Guard uses almost all of its resources daily to accomplish a broad range of operations. Coast Guard reservists prepare for mobilization by augmenting active units and carrying out training and operations alongside their active duty counterparts. The synthesis of these two activities is integration. Integration of the AC and RC was accomplished in three overlapping but distinct stages: alignment of active and reserve units into separate but parallel structures, consolidation of supporting administrative systems, and placement of all personnel into a single organizational structure. Individual reservists now mostly augment active units to simplify administration and increase the utility of the augmentees.

The training employment of the RC, other than those assigned to deployable units, is through direct augmentation of AC units.

Unique to the Coast Guard Reserve is a provision in 14 U.S.C. 712, which allows the Secretary of Homeland Security to involuntarily recall Coast Guard reservists to active duty for

not more than thirty days in any four-month period and not more than sixty days in any two-year period for natural or man-made disasters. This authority was exercised as recently as September 2005 for Hurricane Katrina rescue and recovery efforts in Louisiana and Mississippi, and again for Hurricane Rita recovery efforts in Texas and Louisiana. Title 14 authority was also used immediately following the tragic events of September 11, 2001 to mobilize reservists to carry out security and recovery activities.

B. Coast Guard Equipping Policy

Equipment for domestic operations is provided from within the DHS budget.

Equipment for mobilization under 14 U.S.C. 712 or for normal operational surges is provided by AC units from existing unit inventory, from supporting units, or through contemporary procurement using the DHS budget.

DoD provides selected equipment for the Coast Guard to perform defense operations in support of the combatant commanders. This includes weapons and communications systems that are interoperable with the U.S. Navy and allied forces, and other special purpose equipment needed for the Coast Guard to meet DoD requirements. Units affected include the National Security Cutter (NSC), 378 high endurance cutters, 270' and 210' medium endurance cutters, 110' patrol boats, Port Security Units (PSUs), and Mobile Support Units (MSUs).

Personal Protective Equipment (PPE) is acquired for active duty personnel from the units' operations and maintenance budgets. PPE for reservists is typically purchased from the units' operations and maintenance budgets. The Reserve Training Appropriation may also purchase personal safety and protective gear.

C. Plan to Fill Mobilization Requirements

The Coast Guard is conducting a comprehensive review of its Contingency Personnel Requirements List (CPRL), a critical element of its mobilization plan, to assimilate lessons learned during recent mobilizations for Operation Iraq Freedom (OIF), Operation Enduring Freedom (OEF), and Operation Noble Eagle (ONE). The CPRL includes active and reserve staffing to satisfy ongoing and contingency operational requirements. Positions identified in the CPRL that can reasonably be filled by trained reservists will be associated with Reserve Personnel Allowance List (RPAL) billets filled by Selected Reservists (SELRES). Training for SELRES will be conducted at Coast Guard units nationwide, consistent with integration.

D. Current Coast Guard Initiatives Affecting RC Equipment

Consistent with integration, approximately 85 percent of the SELRES normally use unit-level equipment acquired and supported by ongoing operations funding mechanisms. Remaining SELRES are assigned to deployable PSUs, Naval Coastal Warfare Squadrons and Naval Coastal Warfare Groups. The following initiatives were pursued during FY 2005:

- The Coast Guard stood up two new PSUs in FY 2005 using \$9.2M appropriated in FY 2004. This additional capacity will meet a single OCONUS major military contingency, and provide the flexibility to address emerging defense requirements

recently identified by the Joint Staff, while also offering sufficient depth to support the three year training/reconstitution cycle key to readiness and retention.

- The Coast Guard has acquired 54 new Transportable Port Security Boats (TPSB) since 2003 to recapitalize and upgrade equipment used during OEF and OIF.
- Safety is a top priority of the Coast Guard. The Coast Guard has funded the PPE needed for reservists to safely conduct training and operations alongside their active duty counterparts.

E. Plan to Achieve Full Compatibility Between AC and RC

SELRES personnel are fully integrated into the AC units. They follow the same training programs and carryout assigned duties side-by-side with active duty personnel. PSUs and Naval Coastal Warfare Commands, that are mostly reserve-staffed, are specifically organized and staffed for OCONUS military operations.

II. Coast Guard Reserve (USCGR) Overview

A. Current Status of the USCGR

1. Funding

The Coast Guard Reserve Training Appropriation for FY 2006 provided \$119M for necessary expenses of the Coast Guard Reserve, as authorized by law: operations and maintenance of the reserve program, personnel and training costs, and equipment and services.

2. Personnel

The Coast Guard Reserve provides critical skills and experience that are vital to the Coast Guard's ability to lead, manage and coordinate the national response to acts of terrorism, disasters or other emergencies in the maritime region. Accordingly, the core strategic purpose of the Coast Guard Reserve is to maintain the competencies to perform three prioritized functions: 1) Maritime Homeland Security, 2) Domestic and expeditionary support to National Defense; and, 3) Domestic, natural or man-made, disaster response and recovery.

Foremost, the Coast Guard Reserve must be ready for call-up at any time to provide surge capacity during such contingencies. Training, including normal drill periods and two-week annual active duty, will focus on building and honing the skills and knowledge required for these mobilization duties. Secondly, by virtue of full integration into shore-based units, reservists are available as an augmentation force for the continuum of traditional Coast Guard missions. Their employment in day-to-day operations should be structured to complement mobilization readiness requirements.

The Coast Guard Selected Reserve is staffed at 8,100 personnel that constitute nearly 20 percent of the uniformed Coast Guard strength.

Reserve employment in Defense Contingency operations is shown in the table below. The number of PSUs increased from 6 to 8 in FY 2005 and the number of Coast Guard personnel assigned to Naval Coastal Warfare Commands was reduced consistent with the recent Naval Coastal Warfare reorganization.

FY 2005 Defense Contingency Reserve Staffing				
Units (number)	Officers		Enlisted	
	Active	SELRES	Active	SELRES
Port Security Unit (8)	1	12	5	128
Harbor Defense Command Unit (6)	0	9	0	10
Naval Coastal Warfare Group (2)	1	2	0	4
Joint Reserve Unit (3)	1	13	1	7
Total	13	193	43	1113

B. Changes Since Last NGRER

Two additional PSUs were commissioned in FY 2005.

C. Future Years Program (FY 2007–FY 2009)

Combatant commander contingency plans validate requirements for deployable Coast Guard units.

- Two additional PSUs were commissioned on August 20, 2005. Both units are fully staffed and undergoing initial operational training toward Full Operational Capability (FOC) by June 2006.
- The Coast Guard is closely aligned and integrated with the Navy's Naval Coastal Warfare (NCW) organization. 126 SELRES personnel fill Reserve billets at NCW Groups and Squadrons. There are three RC NCW Squadrons (NCWRON) and one NCW Group on each coast. An NCW reorganization was implemented to provide both Active and Reserve Anti-Terrorism/Force Protection (AT/FP) capabilities for deployed Navy ships on an ongoing basis which will ensure a higher asset security capability when needed.
- The Coast Guard has one MSU augmented by RC personnel. Stand-up of a RC-staffed MSU has been considered, but was deferred due to funding constraints.

D. Remaining Equipment Shortages and Modernization Shortfalls at the End of FY 2009

1. Funding

The Reserve Training budget has increased at a rate similar to the rest of the Coast Guard budget and appears to be adequate to meet projected requirements through FY 2009.

2. Personnel

During FY 2005, the Coast Guard revalidated its organizational definition of the core strategic functions of the RC. It also defined critical competencies the Coast Guard should expect from its RC workforce. With organizational clarity, the Coast Guard is ready to identify the optimal structure and size of the SELRES workforce needed for the next five years. Over the next few months, the Coast Guard will complete a baseline contingency manpower requirements determination. Over the next six to eight months, the Coast Guard intends to:

- Produce a consolidated Contingency Personnel Requirements List that addresses the operational requirements for concurrent execution of Coast Guard contingency response to maritime homeland security and national defense operations.
- Identify resulting manpower gaps and recommend a course of action for resolution.
- Articulate the appropriate size and structure of the SELRES.

3. Equipment

Equipment to support Reserve training is adequate.

E. Summary/Conclusions

Prior to the challenges presented to the Coast Guard by the Global War on Terrorism, Coast Guard Reservists distinguished themselves throughout Coast Guard operations. The performance of the Coast Guard's RC has been superior since September 11th in support of increased security operations, port outloads, heightened security conditions, and military operations. As the Coast Guard is called upon to leverage their traditional competencies and multi-mission assets in support of a broader range of threats, it is the Coast Guard's intention to adapt to our new operating environment and continue to develop and deploy the tools needed by our RC to be effective.

1. Funding

The Coast Guard does not receive any funding through the NGREA; however, the Service continues to receive sufficient budgetary appropriation to support reserve training and readiness throughout the Department of Homeland Security.

2. Personnel

During FY 2005, the Coast Guard revalidated its organizational definition of the core strategic functions of the RC. It also defined critical competencies the Coast Guard should expect from its RC workforce. RC training will focus on building and honing the skills and knowledge required for these mobilization duties. The promulgation of the Commandant's Intent, which clearly describes the organization's strategic policy, lays the foundation and ensures organizational alignment for the future.

With organizational clarity, the Coast Guard is ready to identify the optimal structure and size of the SELRES workforce needed through FY 2009 and beyond. This effort has begun and will be completed during FY 2006.

3. Equipment

Equipment to support reserve training is adequate. Planning for military equipment for use in a combat zone is ongoing. Furthermore, recapitalization of PSU equipment continues. New small boats have been acquired for all eight PSUs: efforts are also underway to replace other equipment that is being maintained beyond the end of its planned life cycle, most notably, unit vehicles.

Current strategic planning in the Joint Strategic Capabilities Plan and the Unified Combatant Commanders' OPLANs obligates the Coast Guard to support operations for two complete patrol boat squadrons. The Coast Guard maintains one MSU capable of supporting one squadron. The Coast Guard is analyzing the requirement to increase MSU capability in the future. Equipment for an additional MSU is initially estimated to cost approximately \$1.2M. In upcoming DHS budgetary cycles, the Coast Guard may seek resources to create an additional MSU, though recent action has been postponed due to other agency priorities.

Consolidated Major Item Inventory and Requirements

NOTE: This table provides a comprehensive list of selected major items of equipment. It provides the quantity on-hand (QTY O/H) projected to be in the inventory at the beginning/end of the selected fiscal year (FY). It also provides the quantity required (QTY REQ) needed to meet the full wartime requirements of the Reserve component. In accordance with Title 10, the QTY REQ number provides the recommendations as to the quantity and type of equipment which should be in the inventory of each Reserve component. Unit cost values are in dollars.

Nomenclature	FY 2007 Unit Cost	Begin FY 2007 QTY O/H	Begin FY 2008 QTY O/H	Begin FY 2009 QTY O/H	End FY 2009 QTY O/H	End FY 2009 QTY REQ
PORT SECURITY UNITS						
25' TPSB (6 per unit)	180,000	54	54	54	54	54
175HP OUTBOARD MOTOR (2 per boat/6 total spares)	10,000	162	162	162	162	162
VEHICLE, F350 PICKUP (2 per unit)	45,000	18	18	18	18	18
VEHICLE, F350 12-PASSENGER VAN (1 per unit)	50,000	9	9	9	9	9
VEHICLE, F550 STAKEBED (1 per unit)	50,000	9	9	9	9	9
PRC 117F RADIO, TRI-BAND (1 per boat/1 total spares)	45,000	40	40	40	40	40
PRC 117F RADIO, TRI-BAND, BASE (2 per unit)	55,000	9	18	18	18	18
PSU EQUIPMENT PACKAGE	1,750,000	8	8	8	8	8
MOBILE SUPPORT UNITS						
TRAILER, CONNEX BOX	30,000	23	23	23	23	23
TRUCK, PICK-UP	45,000	2	2	2	2	2
TRUCK, STAKEBED	50,000	4	4	4	4	4
TRUCK, TRACTOR TRAILER	105,000	2	2	2	2	2
FORKLIFT, 10,000 LB	20,000	1	1	1	1	1
GENERATOR SET 160KW & SPARE PARTS KIT	23,000	2	2	2	2	2
WELDER, GAS POWERED	3,000	1	1	1	1	1

USCGR

Average Age of Equipment

Table 2

<p><i>NOTE: This table provides the average age of selected major items of equipment. The average age provides a projected average age of the fleet at the start of FY 2006.</i></p>			
Nomenclature	Equip No.	Average Age	Remarks
PORT SECURITY UNITS			
25' TPSB		2	New TPSBs have been acquired for all PSUs and CG Special Missions Training Center since 2003.
175HP Outboard Motor		2	3 engines per TPSB (1 spare)
Vehicle, F350 Pickup		7	
Vehicle, F350 15-passenger Van (or Ford Excursion)		7	
Vehicle, F550 Stakebed		7	
Radio, Tri-Band		2	1 per boat (2 spares)

USCGR

Table 3

Service Procurement Program - Reserve (P-1R)

NOTE: This table identifies the dollar value of equipment programmed to be procured with Service procurement funds as identified in the P-1R exhibit of the FY 2007 President's Budget Submission. All values are costs in dollars, and ammunition procurements have been excluded. Deliveries of procured equipment normally take one to two years before they arrive in the inventory; e.g., items procured in FY 2007 would be expected to arrive in RC inventories in FY 2008 or FY 2009.

Nomenclature	FY 2007	FY 2008	FY 2009	Remarks

Table 3 not applicable for USCGR

National Guard and Reserve Equipment Appropriation (NGREA) Procurements

NOTE: This table identifies the dollar value of equipment originally programmed to be procured with the National Guard and Reserve Equipment Appropriation (NGREA). These funds are available for a three-year period from the year of appropriation. Deliveries of procured equipment normally take one to two years from date of procurement before they arrive in the inventory; e.g., items procured in FY 2007 would be expected to arrive in RC inventories in FY 2008 or FY 2009. All values are costs in dollars.

Nomenclature	FY 2004	FY 2005	FY 2006	Remarks

Table 4 not applicable for USCGR

Projected Equipment Transfer/Withdrawal Quantities

NOTE: This table portrays the planned equipment transfers (Active to Reserve), withdrawals (-), and decommissioning (-). Transferred equipment is commonly called "cascaded equipment," or equipment that is provided to the RC once the Active receives more modern equipment. Although this table highlights a three-year period, many Services will not know exact quantities of transfers or withdrawals until year of execution, due to the uncertainty of the procurement/delivery cycle of new equipment.

Nomenclature	Equip No.	FY 2007 Qty	FY 2008 Qty	FY 2009 Qty	Remarks
<p>Service has no planned transfers or withdrawals for the years FY 2007 thru FY 2009</p>					

USCGR

Table 6

FY 2003 Planned vs Actual Procurements and Transfers

NOTE: This table compares what the Service planned to procure and transfer to the RC in FY 2003 with actual procurements and transfers. FY 2003 is selected as these are the most recent funds to expire. Since the procurement cycle is normally one to two years from funding to delivery, this table identifies only what has been delivered through the end of FY 2005. Procurement and NGREA columns reflect cost values in dollars.

Nomenclature	Equip No.	FY 2003 Transfers (# of items)		FY 2003 Procurements (\$s)		FY 2003 NGREA (\$s)	
		Plan	Actual	Plan	Actual	Plan	Actual

USCGR had no planned or actual transfers or procurements of major equipment during FY 2003

Major Item of Equipment Substitution List

NOTE: This table identifies equipment authorized by the Service to be used as a substitute for a primary item of equipment. The table also identifies whether or not the item is able to be deployed in wartime. This data meets the Title 10 requirement to identify equipment that is not the most desired item of equipment.

Required Item Nomenclature	Reqd Item Equip No.	Substitute Item Nomenclature	Substitute Item Equip No.	FY 2007 Qty	Deployable?	
					Yes	No
<p>Service Does Not Use Substitution To Satisfy Major Item Equipment Requirements</p>						

USCGR

Significant Major Item Shortages

Table 8

NOTE: This table provides an RC top ten prioritized (PR) shortage list for major items of equipment required for wartime missions but which are currently not funded in the FYDP. It lists the total quantity required, the total unfunded requirement, the individual item cost, and the cost of the unfunded portion. This data is consistent with other unfunded data submitted by the Service.

PR	Nomenclature	Total Req'd	# Items ¹ Short	Item Cost	Total Shortage Cost	Rationale/ Justification
1	Truck, pick-up	16	11	29,000	319,000	Port Security Units
2	Truck, stake-bed	8	6	65,000	390,000	Port Security Units
3	Excursion / 15 passenger van	8	5	25,000	125,000	Port Security Units

1. Shortage items are required for recapitalization of outdated equipment.

Appendix A

Report Requirements, Terminology, and Definitions

I. Report Requirements

A. Overview of Statutory Requirement

The DoD Authorization Act of 1982 (Public Law 97-86) established the requirement for DoD to provide an annual report to the Congress, by February 15th of each year, on the status of National Guard and Reserve equipment; hereafter referred to as the NGRER. The Goldwater-Nichols DoD Reorganization Act of 1986 amended Title 10 of the U.S. Code placing the reporting requirement under Section 115(b). The Congress in Public Law 103-337 transferred reporting requirements to a new Subtitle E, Reserve Components, Part I, Chapter 1013, which was re-designated Section 10541. Finally, in compliance with the FY 1993 National Defense Authorization Act, Section 1134, Title XI, the NGRER was expanded to include a description of the current status of equipment incompatibility between the AC and RC, the effect of that level of incompatibility, and the plan to achieve full compatibility.

This report is prepared by the Office of the Assistant Secretary of Defense for Reserve Affairs with the assistance of the Department of the Army, the Department of the Navy, the Department of the Air Force, and the Department of Homeland Security (U.S. Coast Guard).

B. Current Law

The section below is an excerpt from Title 10, U.S. Code, Section 10541.

National Guard and Reserve Component Equipment: Annual Report to Congress

(a) The Secretary of Defense shall submit to the Congress each year, not later than February 15, a written report concerning the equipment of the National Guard and the reserve components of the armed forces for each of the three succeeding fiscal years.

(b) Each report under this section shall include the following:

(1) Recommendations as to the type and quantity of each major item of equipment which should be in the inventory of the Selected Reserve of the Ready Reserve of each reserve component of the armed forces.

(2) A statement of the quantity and average age of each type of major item of equipment which is expected to be physically available in the inventory of the Selected Reserve of the Ready Reserve of each reserve component as of the beginning of each fiscal year covered by the report.

(3) A statement of the quantity and cost of each type of major item of equipment which is expected to be procured for the Selective Reserve of the Ready Reserve of each reserve component from commercial sources or to be transferred to each such Selected Reserve from the active-duty components of the armed forces.

(4) A statement of the quantity of each type of major item of equipment which is expected to be retired, decommissioned, transferred, or otherwise removed from the physical inventory of the Selected Reserve of the Ready Reserve of each reserve component and the plans for replacement of that equipment.

(5) A listing of each major item of equipment required by the Selected Reserve of the Ready Reserve of each reserve component indicating -

(A) the full war-time requirement of that component for that item, shown in accordance with deployment schedules and requirements over successive 30-day periods following mobilization;

(B) the number of each such item in the inventory of the component;

(C) a separate listing of each such item in the inventory that is a deployable item and is not the most desired item;

(D) the number of each such item projected to be in the inventory at the end of the third succeeding fiscal year; and

(E) the number of non-deployable items in the inventory as a substitute for a required major item of equipment.

(6) A narrative explanation of the plan of the Secretary concerned to provide equipment needed to fill the war-time requirement for each major item of equipment to all units of the Selected Reserve, including an explanation of the plan to equip units of the Selected Reserve that are short of major items of equipment at the outset of war.

(7) For each item of major equipment reported under paragraph (3) in a report for one of the three previous years under this section as an item expected to be procured for the Selected Reserve or to be transferred to the Selected Reserve, the quantity of such equipment actually procured for or transferred to the Selected Reserve.

(8) A statement of the current status of the compatibility of equipment between the Army reserve components and active forces of the Army, the effect of that level of incompatibility on combat effectiveness, and a plan to achieve full equipment compatibility.

(c) Each report under this section shall be expressed in the same format and with the same level of detail as the information presented in the annual Future Years Defense Program Procurement Annex prepared by the Department of Defense.

II. Report Objective

Based upon the law, the Office of the Assistant Secretary of Defense for Reserve Affairs (Materiel & Facilities), with concurrence from all Services, has identified the following objectives:

- Provide the Services' plan to equip their Reserve forces in a time of constrained DoD budgets.
- Concentrate on FY 2007 to 2009 RC requirements, procurements and changes.

- Provide an overview of current RC equipment from three perspectives:
 - current status of equipment on hand.
 - future year equipment procurements for FY 2007 - FY 2009
 - remaining shortfall for FY 2010 and beyond.
- Focus primarily on major items of equipment.

III. Report Contents

A. Analysis and Conclusion (Chapter 1)

Chapter 1, Analysis and Conclusion presents a composite DoD perspective on National Guard and Reserve equipment and serves as the executive summary of the report.

B. Service Narratives and Data Tables (Chapters 2–6)

Chapters 2 through 6 present the status of each Service and their respective RC in terms of RC equipping policies and methodologies. Each chapter contains a Service and RC overview, and includes a discussion of current equipment status, future equipment procurements, and remaining shortfalls and unfunded requirements. Each chapter includes a review of the current status of equipment compatibility and interoperability between the AC and the RC of each Service, the effect of that level of compatibility/interoperability, and a plan to achieve full compatibility/interoperability.

RC data tables for each Service contain specific information on major items of equipment selected for review in this report and are placed at the end of each RC narrative section. The NGRER articulates data in eight tables (*Tables 1-8*) for each RC. In a situation where data tables are not applicable to a particular RC, a blank page has been inserted to note that table data is not applicable. The “Data Table Explanation” at the end of this section defines the data contained in *Tables 1-8*.

IV. Terminology and Definitions

Major Items of Equipment include aircraft, tanks, ships, trucks, engineer equipment and major items of support equipment. These items normally will include large dollar value requirements, critical RC shortages, Service and NGREA procured items, and any RC specific item which the Chief of the specific RC wishes to highlight.

Required Quantity is the total number of an item required to be on hand or available to RC units to go to war and accomplish their mission(s). This includes requirements for war reserve and other stocks. The simplified term “requirement,” as used in this report, is synonymous with “full wartime requirement,” and satisfies the requirement in Title 10 to provide a “recommendation” as to the type and quantity of equipment needed in RC inventories.

On-Hand Quantity is the equipment physically on hand in RC or AC units or in war reserve and other stocks specifically designed for wartime use by the RC or AC.

Deployable Item is an item which, considering its suitability, operability, compatibility and supportability, will provide an expected degree of mission success sufficient to warrant its wartime operational employment.

Compatibility/Interoperability denotes the capability of two items of equipment to operate together in the same environment without interfering with one another and without degrading function or unit capability.

Substitute Item is not the most desired item but based upon its capability can be employed in wartime in lieu of a combat essential required item of equipment. It may not function at the same level of capability as the item in the AC for which it is the substitute.

Equipment Shortage (Shortfall) is the difference between the quantity required and the quantity on hand, excluding substitute items and excess quantities beyond the required quantity.

Modernization Shortfall is the difference between the required quantity of the most modern item and the on hand quantity of that item. Modernization shortfalls are not necessarily equipment shortages as most Services substitute older versions of an item for the most modern item. Therefore, modernization shortfalls are shortages of the most modern item only, and can have a significant effect upon compatibility and interoperability.

V. Data Tables

A. Table Contents

A separate set of Data Tables (*Tables 1-8*) is provided in Chapters 2 through 6 for each RC. These tables contain the required information relative to major items of equipment identified in the report. The following list identifies the separate data tables that are included in the report for each RC.

- Table 1: Consolidated Major Item Inventory and Requirements (This is an all-inclusive table while other tables are subsets of *Table 1*.)
- Table 2: Average Age of Equipment
- Table 3: Service Procurement Program - Reserve (P-1R)
- Table 4: National Guard and Reserve Equipment Appropriation (NGREA) Procurements
- Table 5: Projected Equipment Transfer/Withdrawal Quantities
- Table 6: FY 2003 Planned vs Actual Procurements and Transfers
- Table 7: Major Item of Equipment Substitution List
- Table 8: Significant Major Item Shortages.

B. Table Explanations

The following paragraphs provide an explanation of the data table columns and data criteria by Table.

Table 1: Consolidated Major Item Inventory and Requirements. This table provides a comprehensive list of selected major items of equipment the RC chooses to highlight, by providing key administrative data, on-hand inventories and wartime requirements.

RC is the specific Reserve or National Guard entity, i.e., ARNG, USAR, USMCR, ANG, AFR, USNR or USCGR.

Nomenclature is the description or common name of the item of equipment.

Equipment Number is the individual Service equipment identification code: Line Item Number (LIN) for Army; Table of Authorized Materiel (TAM) for the Marine Corps; Equipment Cost Code (ECC) for Navy engineering items; and National Stock Number (NSN) for the Air Force.

Cost is the FY 2007 procurement cost per unit. If an item is no longer being procured, the inflation adjusted cost from the last procurement is shown. If an item is programmed for initial procurement beyond FY 2007, the data table depicts the projected unit cost at the time of procurement.

Quantity On-hand (QTY O/H) is the actual/projected item count for a particular item of equipment at a specified time.

Quantity Required (QTY REQ) is the authorized wartime requirement for a given item of equipment.

Table 2: Average Age of Equipment. This table is a subset of *Table 1* and highlights the average age of selected items of equipment.

Average Age is the calculated age of a given item of equipment. Since equipment is normally procured over several years, this figure provides an average age of the fleet.

Table 3: Service Procurement Program - Reserve (P-1R). This table highlights items of equipment, which the Service intends to procure for their RC. The source of this data is the P-1R exhibit to the President's Budget.

Table 4: National Guard and Reserve Equipment Appropriation (NGREA) Procurements. This table highlights the items, which the RC plan on procuring with miscellaneous NGREA funds. Since these funds are available for three years, this table highlights those items in the current procurement cycle.

Table 5: Projected Equipment Transfer/Withdrawal Quantities. This table portrays the planned equipment transfers (AC to RC), withdrawals, and decommissioning. Transfers are commonly called "cascaded" equipment or equipment that is provided to the RC once the AC receives more modern equipment items. Although this table highlights a three-year period, many Services do not know exact quantities of transfers or withdrawals until year of execution due to the uncertainty of the procurement/delivery cycle of new equipment.

Table 6: FY 2003 Planned vs Actual Procurements and Transfers. This table compares what the Service planned to procure and transfer to the RC in FY 2003 with actual procurements and transfers. Since the procurement cycle is normally one to two years from funding to delivery, this table identifies only what has been delivered through the end of FY 2005.

Planned Quantity is the item quantity the Service programmed to deliver to the RC as part of the budgeting process.

Actual Quantity is the item quantity the Service actually delivered or has in the procurement cycle to deliver to the RC.

Table 7: Major Item of Equipment Substitution List. A list of equipment authorized by the Service to be used as a substitute for a primary item of equipment. This table also identifies whether this substitute item is suitable for deployment in time of war.

Nomenclature (Required Item/Substitute Item), see *Table 1* description for nomenclature.
Equipment Number (Required Item/Substitute Item), see *Table 1* description for equipment number.

Table 8: Significant Major Item Shortages. The top ten items of equipment and modernization/upgrades, which are not funded in the FY 2007 - 2011 FYDP, are listed on this table in priority order. If additional funds were to become available, the RC would apply those funds to the highest priority item on this list.

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Appendix C

Acronym Glossary

Acronym	Nomenclature
AAO	Approved Acquisition Objective
AATC	Air National Guard/Air Force Reserve Test Center
AAV	Amphibious Assault Vehicle
ABI	Airborne Broadcast Intelligence
AC	Active Component
ACADA	Automatic Chemical Agent Detection Alarm
ACC	Air Combat Command
ACP	Army Campaign Plan
ACS	Aerial Common Sensor
ACW	Air Control Wing
ADRS	ARNG Division Redesign Study
AE	Aeromedical
AEF	Aerospace Expeditionary Force
AETC	Air Education and Training Command
AF	Air Force
AFIWC	Air Force Information Warfare Center
AFR	Air Force Reserve
AFRL	Air Force Research Laboratory
AFSOC	Air Force Special Operations Command
AFSPC	Air Force Space Command
AFSS	Automatic Fire Suppression Systems
AIFF	Advanced Identification/Friend or Foe
AMC	Air Mobility Command
AMCM	Airborne Mine Countermeasures
AMP	Avionics Modernization Program
AMSA	Area Maintenance Support Activity
ANG	Air National Guard
ANGB	Air National Guard Base
AOC	Air Operations Center
AOR	Area of Responsibility
APN	Aircraft Procurement Navy
AR	Army Reserve
ARB	Air Reserve Base
ARC	Air Reserve Component
ARFORGEN	Army Force Generation Model
ARNG	Army National Guard
ARPL	Army Resourcing Priority List
ASE	Aircraft Survivability Equipment
ASIP	Aircraft Structural Integrity Program
ASIP	Advanced System Improvement Program
AT	Advanced Technology
AT/FP	Anti-Terrorism/Force Protection
AT-FLIR	Advance Targeting Forward-Looking Infrared
ATGM	Anti-Tank Guided Missile
ATLAS	All Terrain Lifter, Army System
ATP	Advanced Targeting Pod
BCT	Brigade Combat Team
BDE	Brigade

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Acronym Glossary

Acronym	Nomenclature
BOL	Bottom Launcher
BRAC	Base Realignment and Closure
CACS	Command and Control Squadron
CAF	Combat Air Force
CARDF	Critical Asset Rapid Distribution Facility
CAS	Close Air Support
CBMU	Construction Battalion Maintenance Units
CBRNE	Chemical, Biological, Radiological, Nuclear and Explosives
CBU	Construction Battalion Unit
CC	Combatant Commander
CCIP	Common Configuration Implementation Program
CENTCOM	U.S. Central Command
CESE	Civil Engineering Support Equipment
CFLSW	Commander, Fleet Logistics Support Wing
CHP	Controlled Humidity Preservation
CHWR	Commander, Helicopter Wing Reserve
CID	Combat Identification
CMC	Commandant of the Marine Corps
CMFDS	Color Multi-functional Displays
CMS	Countermeasures Management System
CNO	Chief of Naval Operations
COMARFPCOM	Commander, Maritime Force Protection Command
CONUS	Continental U.S.
COTS	Commercial Off-the-Shelf
CPRL	Contingency Personnel Requirements List
CRC	Control and Reporting Center
CRPW	Commander, Reserve Patrol Wing
CS	Combat Support
CSAR	Combat Search and Rescue
CSS	Combat Service Support
CST	Civil Support Team
CTCS	Combat Training Centers
CUCV	Commercial Utility Cargo Vehicle
CUPID	Combat Upgrade Plan Integration Details
CVWR	Carrier Air Wing Reserve
DA	Department of the Army
DAGR	Defense Advanced GPS Receiver
DC, I&L	Deputy Commandant of the Marine Corps, Installations and Logistics
DC, PP&O	Deputy Commandant of the Marine Corps, Plans, Policies, and Operations
DCGS-A	Distributed Common Ground System-Army
DEAD	Destruction of Enemy Air Defenses
DEPMEDS	Deployable Medical System
DHS	Department of Homeland Security
DLRC	Deployable Learning Resource Centers
DMO	Distributed Mission Operations
DMT	Distributed Mission Training
DO	Distributed Operations

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Acronym Glossary

Acronym	Nomenclature
DoD	Department of Defense
DOTMLPF	Doctrine, Organizations, Training, Materiel, Leadership and Education, Personnel, and Fa
DTOC	Distributed Training Operations Center
DVR	Digital Video Recorder
EDL	Equipment Density List
EDS	Equipment Demobilization Site
EFDS	Expeditionary Force Development System
EMEDS	Expeditionary Medical Support
EMOC	Electronic Maintenance Operations Center
EMW	Expeditionary Maneuver Warfare
EOD	Explosive Ordnance Disposal
EOH	Equipment On-hand
EPLRS	Enhanced Position Location Reporting System
ER	Equipment Readiness
ESP	Extended Service Program
ETCAS	Enhanced Traffic Alert and Collision Avoidance System
EUCOM	U.S. European Command
FAC-A	Forward Air Controller-Airborne
FCS	Future Combat System
FDL	Fighter Data Link
FEMA	Federal Emergency Management Agency
FFG	Guided Missile Frigate
FLIR	Forward Looking Infrared
FMT	Full Mission Trainer
FMTV	Family of Medium Tactical Vehicles
FOC	Full Operational Capability
FSRG	Force Structure Review Group
FTU	Flying Training Unit
FTU	Formal Training Unit
FW	Fighter Wing
FY	Fiscal Year
FYDP	Future Years Defense Program
GATM	Global Air Traffic Management
GCSS-MC	Global Combat Support System-Marine Corps
GMTI	Ground Moving Target Indicator
GPS	Global Positioning System
GWOT	Global War on Terrorism
HARM	High Speed Anti-Radiation Missile (HARM)
HEMTT	Heavy Expanded Mobility Tactical Truck
HET	Heavy Equipment Transporter
HETS	Heavy Equipment Transporter System
HF	High Frequency
HIMARS	High Mobility Artillery Rocket System
HLD	Homeland Defense
HLS	Homeland Security

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Acronym Glossary

Acronym	Nomenclature
HMCS	Helmet Mounted Cueing System
HMLA	Marine Light Attack Helicopter Squadron
HMMWV	High Mobility, Multipurpose Wheeled Vehicle
HOA	Horn of Africa
HQDA	Headquarters, Department of the Army
HTS	HARM Targeting System
HUD	Heads Up Display
IAMS	Inertially Aided Munitions
IAP	International Airport
IBU	Inshore Boat Unit
ICCE	Individual Clothing/Combat Equipment
ICV	Infantry Carrier Vehicle
IED	Improvised Explosive Device
IFF	Identification Friend or Foe
IHFR	Improved High Frequency Radio
IISR	Integrated Intra Squad Radio (IISR)
IMA	Individual Mobilization Augmentee
IO	Information Operations
IOC	Initial Operational Capability
IR	Infrared
IRCM	Infrared Countermeasures
ISR	Intelligence, Surveillance and Reconnaissance
ITAS	Improved Target Acquisition System
IWAS	Information Warfare Aggressor Squadron
JDAM	Joint Directed Attack Munitions
JFACC	Joint Force Air Component Commander
JHMCS	Joint Helmet Mounted Cueing System
JIM	Joint, Interagency and Multinational
JSTARS	Joint Surveillance Target Attack Radar System
JTRS	Joint Tactical Radio System
KW	Kilowatt
LAIRCM	Large Aircraft Infrared Countermeasures
LANTIRN	Low Altitude Navigation and Targeting Infrared for Night
LARS	Lightweight Airborne Recovery System
LAV	Light Armored Vehicle
LD/HD	Low Density/High Demand
LIN	Line Item Number
LMTV	Light Medium Tactical Vehicle
LST	Laser Spot Track
LW	Lightweight
MACS	Mobile Approach Control System
MAGTF	Marine Air-Ground Task Force
MAJCOM	Major Command
MARCORLOGBASES	Marine Corps Logistics Bases

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Acronym Glossary

Acronym	Nomenclature
MASINT	Measurement and Signature Intelligence
MCCC	Mobile Consolidated Command Center
MCERG	Marine Corps Ground Equipment Review Group
MCLC	Marine Corps Logistics Command
MCM	Mine Countermeasures
MCNR	Military Construction Navy Reserve
MCS	Modular Control System
MDS	Mission Design Series
MEADS	Medium Extended Air Defense System
MFR	Marine Forces Reserve
MGS	Mobile Gun System
MHE	Materiel Handling Equipment
MIDS	Multifunctional Informational Distribution Systems
MIE	Major Item of Equipment
MIUW	Mobile Inshore Undersea Warfare
MLC	Marine Logistics Command
MLRS	Multiple Launch Rocket System
MLS	Multi Level Security
MOA	Memorandum of Agreement
MPF	Major Program Force
MPF	Maritime Prepositioning Force
MSU	Mobile Support Unit
MTEC	Mission Training Engineering Center
MTS	Mobile Tracking System
MTT	Multi-Task Trainer
MTV	Medium Tactical Vehicle
MTVR	Medium Tactical Vehicle Replacement
NAVELSF	Naval Expeditionary Logistics Force
NCF	Naval Construction Force
NCFSU	Naval Construction Force Support Unit
NCR	Naval Construction Regiment
NCW	Naval Coastal Warfare
NGREA	National Guard and Reserve Equipment Appropriation
NGRER	National Guard and Reserve Equipment Report
NMCB	Naval Mobile Construction Battalion
NMS	National Military Strategy
NRF	Naval Reserve Force
NRFI	Not Ready For Issue
NRO	National Reconnaissance Office
NSC	National Security Cutter
NVG	Night Vision Goggles
NVIS	Night Vision Imaging System
OEF	Operation Enduring Freedom
OIF	Operation Iraqi Freedom
OMFTS	Operational Maneuver from the Sea
OMMCR	Operation and Maintenance, Marine Corps Reserve
ONE	Operation Noble Eagle

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Acronym Glossary

Acronym	Nomenclature
OPLAN	Operation Plan
OPN	Other Procurement-Navy
OPTEMPO	Operational Tempo
ORI	Operational Readiness Inspection
OT	Operational Testing
OTV	Outer Tactical Vests
OUE	Operational Utility Evaluation
PACOM	U.S. Pacific Command
PANMC	Procurement of Ammunition, Navy and Marine Corps
PE	Precision Engagement
PIP	Product Improvement Program
PLS	Palletized Load System
PMC	Procurement Marine Corps
PMO	Program Management Office
POM	Program Objective Memorandum
PPE	Personal Protective Equipment
PRESBUD	President's Budget
PSU	Port Security Unit
QDR	Quadrennial Defense Review
RBE	Remain Behind Equipment
RC	Reserve Component
REF	Rapid Equipping Force
RERP	Reliability Enhancement Re-engining Program
RF	Radio Frequency
RPAL	Reserve Personnel Allowance List
RPMC	Reserve Personnel Marine Corps
RQW	Rescue Wing
RTC	Reserve Training Center
RTC	Regional Training Center
RTCH	Rough Terrain Container Handler
RWR	Radar Warning Receiver
SADL	Situational Awareness Data Link
SAPI	Small Arms Protective Insert
SASO	Security And Stability Operations
SAW	Squad Automatic Weapon
SBCT	Stryker Brigade Combat Team
SBE	Stay Behind Equipment
SELRES	Selected Reservist
SGEW	Strategic Ground Equipment Working Group
SIGINT	Signals Intelligence
SINCGARS	Single Channel Ground-Air Radio System
SLAMRAAM	Surface Launched Advanced Medium-Range Air-to-Air Missile
SLEP	Service Life Extension Program
SMCR	Selected Marine Corps Reserve
SNFL	Standing Naval Forces Atlantic

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Acronym Glossary

Acronym	Nomenclature
SOF	Special Operations Forces
SOW	Special Operations Wing
T/A	Training Allowance
T/O&E	Table of Organization and Equipment
TAAS	The Army School System
TADSS	Training Aids, Devices, Simulators, and Simulations
TAM	Table of Authorized Materiel
TARS	Theater Airborne Reconnaissance System
TAS	Tool Accountability System
TAWS	Terrain Awareness Warning System
TBMCS	Theater Battle Management Core System
TCAS	Traffic Alert & Collision Avoidance System
TOA	Table of Allowance
TOW	Tube Launched, Optically Tracked, Wire Guided
TPSB	Transportable Port Security Boat
TQG	Tactical Quiet Generator
TRP	Training Readiness Platform
TSSR	Tropo Satellite Support Radio
TTC	TAAS Training Center
TUAV	Tactical Unmanned Aerial Vehicle
TWV	Tactical Wheeled Vehicle
UAV	Unmanned Aerial Vehicle
UHF	Ultra High Frequency
USAR	U.S. Army Reserve
USCG	U.S. Coast Guard
USCGR	U.S. Coast Guard Reserve
USF	Unit Set Fielding
USMCR	U.S. Marine Corps Reserve
USNORTHCOM	U.S. Northern Command
USNR	U.S. Navy Reserve
USS	U.S. Ship
USSOUTHCOM	U.S. Southern Command
VHF	Very High Frequency
WCMD	Wind Corrected Munitions Dispense
WIN-T	Warfighter Information Network
WMD	Weapons of Mass Destruction
WRMS	War Reserve Materiel Stock
WRS	Weather Reconnaissance Squadron
WST	Weapon System Trainer

